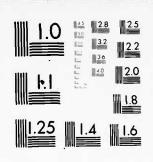
GENERAL DYNAMICS SAN DIEGO CALIF CONVAIR AEROSPACE DIV F/G F-106 SCHEDULED MAINTENANCE STUDY. USER'S MANUAL, (U) SEP 72 G WANG, R S GROTE, J R COOPER F41608-71-D-1383 AD-A045 625 F/G 1/5 UNCLASSIFIED GDCA-AHD72-006 NL 1 of 6 ADA045625

1 OF 6 ADA045625



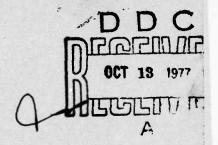
MICROCOPY RESOLUTION TEST CHART NATIONAL BUREAU OF STANDARDS 1963 A - Cp.5

GDCA-AHD72-006

F-106 SCHEDULED MAINTENANCE STUDY

USER'S MANUAL

September 1972



DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

Prepared for Service Engineering Contract F41608-71-D-1383 Request No. VE12 San Antonio Air Materiel Area Kelly Air Force Base, Texas

AD NO. 1975 AND THE COPY AND SOUTH A

GENERAL DYNAMICS
Convair Aerospace Division

GDCA-AHD72-906

F-106 SCHEDULED MAINTENANCE STUDY,

USER'S MANUAL,

Sep 272

(10 Lordon / Trang, L. S. / Grote J. D. Cooper (12)519p.

Prepared for
Service Engineering Contract F41608-71-D-1383
Request No. VE12
San Antonio Air Materiel Area
Kelly Air Force Base, Texas

DISTRIBUTION STATEMENT A

Approved for public release; Distribution Unlimited

GENERAL DYNAMICS

Convair Aerospace Division

406258

dree

FOREWORD

This User's Manual was prepared by the San Diego Operation of Convair Aerospace Division of General Dynamics for the San Antonio Air Materiel Area, Kelly AFB, Texas, under Request VE12, change 1, to Engineering Services Contract F41608-71-D-1383 dated 18 February 1972. Request VE12 is administered under the direction of Capt. G. A. Morgan (SAMMER). This document fulfills the requirements of CDRL Item B010.

Prepared by:

G. Wang

Design Specialist/

Design Programming

R. S. Grote

n. s. Grote

Design Specialist/

Operations Research

J. R. Cooper

Principal Engineer

Approved by:

W. D. Snell

Project Engineer

C. S. Brandt

Program Manager

Letter on file

A 23

TABLE OF CONTENTS

Section				Page
1	INTRO	DUCTION		. 1-1
	1.1	Purpose		. 1-1
	1.2	Scope		.1-1
	1.3	Manual Organization		.1-2
	1.4	Conversion to IBM		. 1-2
2	DATA	REDUCTION PROGRAMS		. 2-1
	2.1	General Description		· 2-1
	2.2	AFM 66-1 File Generation		. 2-4
	2.2.1	AFM 66-1 Screen		. 2-5
	2.2.2	AFM 66-1 Sort		. 2-10
	2.2.3	AFM 66-1 Merge		. 2-13
	2.2.4	AFM 66-1 Eliminate Duplicate Records		. 2-13
	2.2.5	AFM 66-1 Copy Acceptable Aircraft		. 2-14
	2.3	AFM 65-110 File Generation		. 2-17
	2.3.1	AFM 65-110 Screen		. 2-18
	2.3.2	AFM 65-110 Sort		. 2-19
	2.3.3	AFM 65-110 Merge		. 2-24
	2.3.4	AFM 65-110 Eliminate Duplicate Records .		. 2-24
•	2.3.5	AFM 65-110 Copy Acceptable Aircraft		. 2-24
	2.4	AIE File Generation		. 2-25
	2.4.1	Accident/Incident Formatter		. 2-25
	2.4.2	AIE Screen		. 2-28
	2.4.3	AIE Sort		. 2-30
	2.4.4	AIE Merge		. 2-32
	2.4.5	AIE Eliminate Duplicate Records		
	2.4.6	AIE Copy Acceptable Aircraft		. 2-32
	2.5	IRAN File Generation		
	2.5.1	IRAN Formatter of Acceptance Date Data .		. 2-34
	2.5.2	IRAN Preprocessor		
	2.5.3	IRAN Copy Acceptable Aircraft		
3	DATA	BANK GENERATION	•	. 3-1
	3.1	General Description		. 3-1
	3.2	WUC File Generation		. 3-1
	3.2.1	Sort Acceptable WUC		. 3-1
	3.2.2	Sort WUC For Conversion		. 3-3
	3.2.3	WUC Merge		
	~	TO THE PARTY OF TH		

Section			Page
	3.3	Data Bank Program	3-15
	3.3.1	Purpose	3-15
	3.3.2	Input Data and Procedures	3-17
	3.3.3	Output Description	3-18
	3.4	WUC Conversion	. 3-20
	3.4.1	Sort WUC For Conversion	3-20
	3.4.2	Sort WUC For Deletion	3-24
	3.4.3	Verify WUC	3-26
4	STATIS	TICAL ANALYSIS PROGRAMS	4-1
	4.1	General Description	4-1
	4.2	Preprocessor Programs	4-2
	4.2.1	Preprocessor Formatter	. 4-3
	4.2.2	Reformatted Support General WUC Sort	4-7
	4.2.3	Reformatted Non-Support General WUC Sort	4-8
	4.2.4	Reformatted Data Bank Sort	4-10
	4.3	Frequency Analysis - Task I	4-11
	4.3.1	Title Formatter and Five-Digit WUC Analysis	. 4-11
	4.3.2	Frequency Analysis Sort	4-19
	4.3.3	Three-Digit WUC Analysis	4-19
	4.4	Manhour and NOR Time Analysis - Task II	4-20
	4.4.1	Preprocessor - Task II	4-21
,	4.4.2	Sort for Scheduled NORM Hours, Manhours, Un-	
		scheduled NORM Hours, NORS Hours (Sort 2BS)	4-25
	4.4.3	Cumulative Distribution For Scheduled NORM	
		Hours, Manhours, Unscheduled NORM Hours,	
		NORS Hours	. 4-25
	4.4.4	Sort For Unscheduled Manhours (Sort 2CS)	4-27
	4.4.5	Cumulative Distribution For Unscheduled Man-	
		hours	4-28
	4.5	Interval Length Analysis - Task III	. 4-30
	4.5.1	Preprocessor — Task III	. 4-31
	4.5.2	Sort For Inspection Length Interval (Sort 3B).	. 4-35
	4.5.3	Cumulative Distribution For Inspection Length	
		Interval	. 4-36
	4.5.4	Sort For Repair Action Interval (Sort 3C)	. 4-38
	4.5.5	Cumulative Distribution For Repair Action	
		Interval	4-38
	4.6	Effect of Time After Inspection	. 4-40
	4.6.1	Measure Observations at Aircraft Level	. 4-41
	4.6.2	Measure Observations at WUC Level	. 4-49

Section				Page
	4.6.3	Sort Aircraft-Level Observations		4-59
	4.6.4	Sort WUC-Level Observations		4-61
	4.6.5	Merge WUC-Level Observations		4-61
	4.6.6	Observations Count		4-62
	4.6.7	Regression and Correlation Analysis		4-63
	4.6.8	Trend Analysis		4-65
	4.7	Removal Action Analysis - Task V		4-66
	4.7.1	Task V Preprocessor		4-67
	4.7.2	Sort WUC Frequency		4-72
	4.7.3	Write WUC Frequency		4-73
	4.7.4	Sort Non-Isochronal Frequency		4-73
	4.7.5	Write Non-Isochronal Frequency		4-73
	4.7.6	Sort Isochronal Frequency		4-74
	4.7.7	Write Isochronal Frequency		4-74
	4.7.8	Sort Removal Intervals		4-74
	4.7.9	Cumulative Distribution For Removal Intervals		4-75
	4.8	Aircraft Inspection Histories		4-76
	4.8.1	Purpose	-	4-76
	4.8.2	Input Data and Procedures		4-76
	4.8.3	Output Description		4-78
	4.9	Computer Output Analysis		
	4.9.1	Output Analysis - Frequency Analysis - Task I		
	4.9.2	Output Analysis — Manhour and NOR Time	Ī	
		Analyses — Task II		4-80
	4.9.3	Output Analysis - Interval Length Analysis -		
		Task III		4-80
	4.9.4	Output Analysis - Effect of Time After Inspec-	Ĭ	_
		tion — Task IV		4-80
	4.9.5	Output Analysis - Removal Action Frequencies		
		and Interval Length Distributions		4-81
	4.9.6	Output Analysis - Aircraft Inspection Histories		
-			Ī	
5	EFFEC	CTIVENESS AND COST PROGRAMS	•	5-1
	5.1	General Description	•	5-1
	5.2	Effectiveness Model	•	5-1
	5.2.1	Purpose	•	5-1
	5.2.2	Input Data and Procedures		5-3
	5.2.3	Detailed Description of Effectiveness Model .	•	5-5
	5.2.4	Output Description	•	5-20
	5.3	Network Analysis Model	•	5-24
	5.3.1	Purpose		5-24

Section			Page
	5.3.2	Input Data and Procedures	. 5-24
	5.3.3	Output Description	. 5-28
	5.4	Manhour and NORM Data	. 5-30
	5.4.1	Sum Unscheduled Maintenance Actions	. 5-30
	5.4.2	Unscheduled Manhour and NORM Hour	. 5-37
	5.4.3	Sort Unscheduled NORM Hour	. 5-39
	5.4.4	Mean and Variance of Unscheduled NORM Hour	. 5-39
	5.4.5	Sort Unscheduled Manhour	. 5-42
	5.4.6	Mean and Variance of Unscheduled Manhour .	. 5-45
	5.4.7	Merge and Add WUC Group Identification	. 5-45
	5.4.8	Sort Manhour and NORM Data	. 5-50
	5.4.9	Means of WUC Set	. 5-50
	5.4.10	Variance of WUC Set	. 5-51
6	COMPU	TER SOURCE DECK LISTINGS	. 6-1
	6.1	66-1 File Generation Programs	. 6-1
	6.1.1	66-1 Screen	
	6.1.2	66-1 Sort	. 6-5
	6.1.3	66-1 Merge	. 6-5
	6.1.4	66-1 Eliminate Duplicate Records.	3
	6.1.5	66-1 Copy Acceptable Aircraft	. 6-7
	6.2	65-110 File Generation Program:	6-12
	6.2.1	65-110 Screen	. 6-12
	6.2.2	65-110 Sort	. 6-15
	6.2.3	65-110 Merge	- 6-15
	6.2.4	65-110 Eliminate Duplicate Records	. 6-15
	6.2.5	65-110 Copy Acceptable Aircraft	• 6-17
	6.3	AIE File Generation Programs	. 6-21
	6.3.1	AI Formatter	. 6-21
	6.3.2	AIE Screen	. 6-27
	6.3.3	AIE Sort	. 6-30
	6.3.4	AIE Merge	. 6-30
	6.3.5	AIE Eliminate Duplicate Records	. 6-31
	6.3.6	AIE Copy Acceptable Aircraft	. 6-32
	6.4	IRAN File Generation Programs	. 6-36
	6.4.1	IRAN Formatter of Acceptance Data	. 6-36
	6.4.2	IRAN Preprocessor	. 6-41
	6.4.3	IRAN Copy Acceptable Aircraft	. 6-58
	6.5	Data Bank Generation Programs	. 6-62
	6.5.1	Sort Acceptable WUC	. 6-62
	6.5.2	Sort WUC For Conversion - Merge · · · ·	· 6-88

Section			Page
	6.5.3	WUC Merge	. 6-89
	6.5.4	Data Bank Program	.6-90
	6.5.5	Sort WUC for Conversion	. 6-105
	6.5.6	Sort WUC for Deletion	. 6-108
	6.5.7	Verify WUC	. 6-110
	6.6	Preprocessor Programs	. 6-114
	6.6.1	Preprocessor Formatter	. 6-114
	6.6.2	Reformatted Support General WUC Sort	. 6-118
	6.6.3	Reformatted Non-Support General WUC Sort.	. 6-118
	6.6.4	Reformatted Data Bank Sort	. 6-119
	6.7	Programs for Frequency Analyses	. 6-120
	6.7.1	Title Formatter and Five-Digit WUC Analysis	. 6-120
	6.7.2	Frequency Analysis Sort	• 6-134
	6.7.3	Three-Digit WUC Analysis	. 6-134
	6.8	Programs for Manhour and NOR Time Analysis	. 6-141
	6.8.1	Preprocessor - Task II	
	6.8.2		
	6.8.3	Sort for Scheduled NORM Hours	. 0-141
	0.0.3		. 6-147
	6.8.4		. 6-154
	6.8.5	Sort for Unscheduled Manhours	. 0-134
	0.0.0	hours	. 6-154
	6.9	Programs for Interval Length Analyses	
	6.9.1	Preprocessor - Task III	
	6.9.2		. 6-165
	6.9.3	Sort for Inspection Length Intervals Cumulative Distribution for Inspection Length	• 0-100
	0.5.5	Intervals	. 6-166
	6.9.4	Sort for Repair Action Intervals	
	6.9.5	Cumulative Distribution for Repair Action	. 6-171
	0.5.5	Intervals.	. 6-172
	6.10	Programs for Effect of Time After Inspection	
	6.10.1	Measure Observations at Aircraft Level • •	
	6.10.2	Measure Observations at WUC Level	• 6-178 • 6-193
	6.10.3	Sort Aircraft Level Observations	
	6.10.4	Sort WUC Level Observations	. 6-206
	6.10.4		. 6-206
	6.10.6	Merge WUC Level Observations	. 6-206
	6.10.7	Regression and Correlation Analysis	. 6-207
	6.10.8		
	6.10.8	Trend Analysis	6-215
	6.11.1	Programs for WUC Removal Analyses	. 6-221
	Oallal	FIEDIOCESSUI - TASK V	. 0-ZZI

Section			Page
	6.11.2	Sort WUC Frequency	.6-225
	6.11.3	Write WUC Frequency	.6-225
	6.11.4	Sort Non-Isochronal Frequency	.6-227
	6.11.5	Write Non-Isochronal Frequency	.6-227
	6.11.6	Sort Isochronal Frequency	.6-228
	6.11.7	Write Isochronal Frequency	.6-229
	6.11.8	Sort Removal Intervals	.6-230
	6.11.9	Cumulative Distribution of Removal Intervals	.6-230
	6.12	Aircraft Inspection Histories	.6-237
	6.13	Effectiveness Model	.6-242
	6.14	Network Analysis Model	.6-256
	6.15	Manhour and NORM Data - Task 7	.6-263
	6.15.1	Sum Unscheduled Maintenance Actions	. 6-263
	6.15.2	Unscheduled Manhour and NORM Hour	. 6-268
	6.15.3	Sort Unscheduled NORM Hour	. 6-275
	6.15.4	Mean and Variance NORM Hour	. 6-275
	6.15.5	Sort Unscheduled Manhour	. 6-279
	6.15.6	Mean and Variance of Unscheduled Manhour.	. 6-279
	6.15.7	Merge and Add WUC Group Identification	. 6-283
	6.15.8	Sort Manhour and NORM Data	. 6-287
	6.15.9	Means of WUC Set	. 6-287
	6.15.10	Variance of WUC Set · · · · · ·	· 6-290

LIST OF FIGURES

Figure					Page
2-1	Logic Flow of AFM 66-1 File Generation				2-5
2-1	AFM 66-1 Tape Record Layouts				2-7
2-2	Sample Input — AFM 66-1 Screening Criteria .				
2-3	Sample Output — AFM 66-1 Screening Program.				
2-4 2-5	Sample Output — AFM 66-1 Sort Program				
2-6	Sample Input — Acceptable Aircraft Program .				
2-7	Logic Flow of AFM 65-110 File Generation				2-19
2-8	AFM 65-110 Tape Record Layouts				
2-9	Sample Input — AFM 65-110 Screening Criteria.				
2-10	Sample Output — AFM 65-110 Screening Program				
2-10	Sample Output — AFM 65-110 Sort Program				
2-11	Logic Flow of AIE File Generation				
2-12	AI Reformatter Record Layout				
2-13	Sample Output — AI Reformatter				
2-15	AIE Tape Record Layouts				
2-16	Sample Input — Screening Criteria for AIE Tapes				2-30
2-17	Sample Output — AIE Screening Program				2-31
2-18	Sample Output — AIE Sort				2-33
2-19	Logic Flow of IRAN File Generation				2-34
2-20	IRAN File Generation Record Layouts				2-36
2-21	Sample Tape Output — IRAN File				2-41
2-22	Sample Tape Output — IRAN Print Report			•	2-42
3-1	Logic Flow - Data Bank Generation				3-2
3-2	Logic Flow - WUC File Generation	•	•	•	3-2
3-3	Format of WUC Record	•	•	•	3-3
3-4	Sample Output - Sort Acceptable WUC		•		3-10
3-5	Record Layout - Convert WUC				3-15
3-6	Sample Output - Sort Converted WUC	•	•	•	3-16
3-7	Sample Input - Data Bank Control	•	•	•	3-19
3-8	Sample Output - Data Bank	•	•	•	3-21
3-9	Record Layouts - Data Bank	•	•	•	3-22
3-10	Logic Flow - WUC Conversion		•		3-24
3-11	Sample Output - Sort WUC for Conversion	•	•	٠	3-25
3-12	Record Layout - WUC for Deletion		•		3-26
3-13	Sample Output - Sort WUC for Deletion	•	•	•	3-27
3-14	Sample Input — Verify WUC	•	٠	•	3-28
4-1	Logic Flow - Statistical Analysis Programs .		•		4-1
4-2	Logic Flow - Preprocessor Programs		•	•	4-2
4-3	Logic Flow - Preprocessor Formatter Program				4-4

LIST OF FIGURES, Contd

I	Figure		Page
	4-4	Preprocessor Tape Record Layouts	4-5
	4-5	Sample Output - Record-Keeping (Input/Output Totals) .	4-6
	4-6	Sample Output - Record Keeping (Aircraft-Level Sub-	
		totals)	4-6
	4-7	Sample Output — Support General WUC Sort	4-8
	4-8	Sample Output - Non-support General WUC Sort	4-9
	4-9	Sample Output — Data Bank Sort	4-10
	4-10	Logic Flow - Frequency Analysis	4-11
	4-11	Sample Input — Title Formatter and Five-Digit WUC	
		Analysis	4-14
	4-12	Sample Output — Five-Digit WUC Analysis	4-16
	4-13	Record Layout — Title Formatter and Five-Digit WUC	
		Analysis	4-17
	4-14	Sample Output — WUC Data	4-18
	4-15	Sample Output — Title Data	4-18
	4-16	Sample Output — Three-Digit WUC Analysis	4-20
	4-17	Logic Flow - Manhours and NOR Time Analysis (Task II).	4-20
	4-18	Sample Data — Task II Preprocessor	4-23
	4-19	Sample Data — Cumulative Distribution for Scheduled	
		NORM Hours, Manhours, Unscheduled NORM Hours, and	
		NORS Hours	4-26
	4-20	Sample Output — Cumulative Distribution of Scheduled	
		Manhours	4-28
	4-21	Sample Data — Cumulative Distribution for Unscheduled	
		Manhours	4-29
	4-22	Sample Output — Cumulative Distribution for Unscheduled	
		Manhours	4-30
	4-23	Logic Flow — Interval Length Analysis	4-31
	4-24	Sample Data — Task III Preprocessor	4-33
	4-25	Sample Data — Cumulative Distribution for Inspection	
		Length Interval	4-36
	4-26	Sample Output — Cumulative Distribution for Inspection	
		Length Interval	4-37
	4-27	Sample Data — Cumulative Distribution for Repair Action	
		Interval	4-39
	4-28	Sample Output — Cumulative Distribution for Repair	
		Action Interval	4-40
	4-29	Logic Flow - Effect of Time After Inspection - Air-	
		craft Level	4-42
	4-30	Logic Flow — Effect of Time After Inspection — WUC	
		Level	4-43

LIST OF FIGURES, Contd

]	Figure			Page
	4-31	Sample Input - Measure Observations at Aircraft		
		Level	•	4-45
	4-32	Sample Output — Measure Observations at Output		
		Level	•	4-47
	4-33	Sample Output - Record Keeping at Aircraft Level .		4-49
	4-34	Sample Input — Measure Observations at WUC Level.		4-53
	4-35	Sample Output — Measure Observations at WUC Level		4-58
	4-36	Sample Output - Record Keeping at WUC Level		4-60
	4-37	Sample Output - Observations Count		4-63
	4-38	Sample Output - Correlation and Regression Analysis	-	4-64
	4-39	Sample Input — Trend Analysis		4-66
	4-40	Sample Output — Trend Analysis		4-67
	4-41	Logic Flow — Removal Action Analysis		4-68
	4-42	Sample Input — Task V Preprocessor		4-70
	4-43	Sample Output — Removal Frequency	-	4-71
	4-44	County Ordered Developed Intervents		4-72
	4-45	C 1 0 4 4 D 4 CD 1 D		4-73
	4-46			4-76
	4-47	Sample Input — Cutoff for Removal Intervals	•	4-10
	4-41			1 77
	4 40		-	4-77
	4-48	Sample Input — Aircraft Inspection Histories	-	4-78
	4-49	Sample Output — Aircraft Inspection Histories	•	4-79
	5-1	Effectiveness Model		5-1
	5-2	Detailed Effectiveness Model		5-6
	5-3	Sample Data — Effectiveness Model		5-19
	5-4	Typical Effectiveness Model Outputs		5-20
	5-5	Sample Output — Effectiveness Model		5-20
	5-6	Network Analysis Model		5-25
	5-7	Sample Data - Network Analysis Model		5-27
	5-8	Sample Output — Network Analysis Model		5-28
	5-9	Logic Flow - Manhour and NORM Data		5-31
	5-10	Sample Input - Sum Unscheduled Maintenance Actions	_	
	5-11	Record Layouts - Manhour and NORM Data		
	5-12	Sample Output - Sum Unscheduled Maintenance Actions		
	5-13	Logic Flow - Mean and Variance for Unscheduled Man-		0 00
	0-10	hour and NORM Hour · · · · · · · · · · · · · · · · · · ·		5-37
	5-14	Sample Output - Unscheduled Manhour and NORM Hour		
	5-15	Sample Output - Sort Unscheduled NORM Hour · · ·	•	9-41
	5-16	Sample Output - Mean and Variance of Unscheduled		F 40
		NORM Hour		5-43
	5-17	Sample Output - Sort Unshceduled Manhour		2-44

LIST OF FIGURES, Contd

Figure		Page
5-18	Sample Output - Mean and Variance of Unscheduled Manhour	5-46
5-19	Sample Input - Merge and Add WUC Group Identification.	5-47
5-20	Sample Output - Merge and Add WUC Group Identification	5-49
5-21	Sample Output - Mean of WUC Set, File - 2	
5-22	Sample Output - Mean of WUC Set, File - 3	5-53
5-23	Sample Output - Variance of WUC	5-55

LIST OF TABLES

		Page
Conversion Table for Week Number		. 2-2
AFM 66-1 Source Data Tapes		. 2-4
AFM 65-110 Source Data Tapes (AFLC Numbers) .	•	. 2-4
Tail Numbers of Acceptable Aircraft		· 2-14
AIE Data Sources	•	. 2-25
Work Unit Codes · · · · · · · · · · · · · · · · · · ·		. 3-4
WUC Conversion - Work Unit Codes for Deletion •		. 3-11
WUC Conversion - Work Unit Codes for Conversion		. 3-13
Data Item Source		. 3-23
	AFM 66-1 Source Data Tapes	Conversion Table for Week Number

LIST OF ABBREVIATIONS

ACI Analytical Condition Inspection

AI Accident/Incident

AIE Accidents, Incidents, and EUMR
ANS American National Standard

ATC Action-Taken Codes

bpi Bits Per Inch byte 8 Binary Bits

CPU Central Processor Unit

EUMR Emergency Unsatisfactory Material Report

FH Flight Hour

HMC How-Malfunction Code HPF Hourly Postflight

IBM International Business Machine

ID Identification

IRAN Inspect and Repair As Necessary

JCL Job Control Language
MA, ma Maintenance Action

MISR COBOL name for correlation and regression

subroutine

NAM Network Analysis Model NOR Not Operationally Ready

NORM Not Operationally Ready due to Maintenance

NORS Not Operationally Ready due to Supply

NSG Non-support General

SAAMA San Antonio Air Materiel Area

SG Support General

uma Unscheduled Maintenance Action

WDC When-Discovered Code

WUC Work Unit Code

SECTION 1

INTRODUCTION

1.1 PURPOSE

A system of IBM 370 programs has been developed for the scheduled maintenance study by Convair Aerospace Division of General Dynamics for the San Antonio Air Materiel Area, Kelly AFB, Texas. This handbook provides information needed by user personnel for basic understanding and for executing each of the computer programs. A fleet of 150 F-106 aircraft was used to validate the design of the programs on the IBM 370 (Model 165) at Convair Aerospace, San Diego. The design of the programs is generalized to cover all USAF aircraft.

1.2 SCOPE

For each of the computer programs, the following information is given.

- a. Purpose of the program.
- b. Input Description.
- c. Sample Input.
- d. Procedures.
- e. Output Description.
- f. Sample Output.
- g. Output Size and IBM 370 Time.
- h. Notes on Limitations.

Programs have been written in American National Standard COBOL and Basic FORTRAN IV languages. Section 6 contains the computer source deck listings of all the IBM 370 computer programs together with the job control cards and sample data cards. To achieve compatibility with SAAMA equipment, only the subset of ANS COBOL compatible with Version D COBOL was used. Procedures to convert the IBM 370 programs into the SAAMA IBM 360 are contained in Paragraph 1.4.

To estimate computer time requirement on the IBM 360 from the IBM 370 data, it would be realistic to assume a factor of three to one. Nine-track, 1600-bits-per-inch tapes were used on the IBM 370. The program and data bank tapes, part of the contract end items to be delivered to SAAMA, are seven-track with 800 bits per inch.

In addition to the functions performed by the programs described in this manual, a sort and merge capability is also required. Since sort/merge programs are typically software features supplied with operating systems, the relevant discussions in this handbook are limited to descriptions of the sort/merge control fields.

For a detailed discussion of the engineering model for the scheduled maintenance study, see the Phase I report, Convair Aerospace report GDCA-AHD72-001, and the Phase II report, GDCA-AHD72-003.

1.3 MANUAL ORGANIZATION

Four major categories of computer programs are covered in this manual:

- a. Data Reduction Programs (Section 2).
- b. Data Bank Generation (Section 3).
- c. Statistical Analysis Programs (Section 4).
- d. Effectiveness and Cost Programs (Section 5).

Listings of all the IBM 370 computer programs with job control and sample data cards are contained in Section 6. Appropriate figures and tables are included in the various sections to improve the understanding of the logic and structure of the computer programs.

1.4 CONVERSION TO IBM 360

As part of the contract end items, computer programs and the data bank are stored in magnetic tapes. FORTRAN and COBOL programs are stored in separate reels.

Data Bank was written on two reels on SAAMA Reel Numbers 1045 (Reel 1) and 9490 (Reel 2). Tape was written on seven-track, 800 bpi with 50 characters per record, blocked 60 to a tape record. FORTRAN and COBOL source programs were written on SAAMA Reel No. 8761 and 10,479, respectively. Tape structure for the program tapes consists of 80 characters per record, blocked 20 to a tape record. There are about 4000 cards for the FORTRAN programs and about 14,000 cards for the COBOL programs.

For the convenience of the users, some modifications were made on the IBM 370 COBOL programs before they were copied onto the previously mentioned tapes:

- a. Removal of the 'sync' in the Data Division.
- b. Replace GOBACK with STOP RUN.
- c. Carriage control character changed to 0, 1, or blank.
- d. Program ID Statement change.

For conversion to IBM 360 at SAAMA, the user must:

- a. Produce IBM 360 job control cards.
- b. Modify file-control in the Input-Output section.
- c. Generate input data cards.

The programs require less than 100,000 bytes of core storage.

SECTION 2

DATA REDUCTION PROGRAMS

2.1 GENERAL DESCRIPTION

The purpose of the data reduction programs is to reduce four data source inputs into four sorted files, which are used as input to the data bank generation programs. (See Section 3.) The four data sources consist of:

AFM 66-1 maintenance data.

AFM 65-110 utilization, NOR, and possessed hour data.

Data files for IRAN histories.

Accident, incident, and emergency unsatisfactory material report histories (AIE).

These data files are referred to as 66-1, 65-110, IRAN, and AIE files, respectively.

The analysis of maintenance policies requires that data from the four sources be processed and combined into a single data bank, which serves as input to the various analytical programs. The development of the data bank requires screening, reorganization, and summarization of the data from each of the four sources. The data bank is organized into a sorted file of aircraft serial number histories. For each serial number, all activity records for each of the data sources are summarized to statistics representing seven consecutive days. These seven-day periods are referred to as "weeks," although they do not correspond to any particular calendar week. To obtain the desired data organization in the data bank, the input from each of the four data sources must be sorted into ascending serial number sequence and into chronological order within each serial number. Table 2-1 contains first and last day numbers, with the corresponding calendar dates, for each of the week numbers used for this study. January 1, 1965 is the first day number for the week number one.

In addition to the required data, the 66-1 and 65-110 files contain data that is not relevant to this study. Consequently, these data files must be screened to eliminate the extraneous records. Furthermore, for various reasons, certain aircraft serial numbers are excluded from the data base. The screening programs for the 66-1, 65-110, and AIE files eliminate these serial numbers. Finally, the 66-1 file may contain duplicate records, and after the 66-1 data has been screened, sorted, and merged into a single ordered file, adjacent records must be compared to eliminate the duplicates. The source data tapes for 66-1 and 65-110 are shown in Tables 2-2 and 2-3, respectively.

Table 2-1. Conversion Table for Week Number

NEEK	4	1 * 1 8 5 2 7 5 2 5 2 5 2 5 2 5 2 5 2 5 2 5 2 5	LAST - GAY 107 124 134 529 667 867 941 11152	CANADA CO	NG - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	FIRS 18344 8344 8344 85185 867185 867185 867185 87185 87185 87185 9714 9756 9717	UATE 16 APR 67 17 APR 67 14 APR 67 14 APR 67 15 MAY 67 15 MAY 67 12 MAY 67 12 JUN 67 12 JUN 67 13 JUY 67 14 AUG 67 14 AUG 67 28 AUG 67	AS 8855 6778899 63074188	10 APR 07 230 APR 07 27 APY 07 27 MAY 07 28 MAY 07 28 MAY 07 28 MAY 07 21 JUN 07 21 JUN 07 25 JUN 07 25 JUN 07 27 JUN 07 27 JUN 07 28 JUN 07 29 JUN 07 29 JUN 07 20 JU
0789611 V945 0789 511 V9 45 07890	122 112 1123 122 112 122 122 122 122 122	PART AND THE PROPERTY AND THE PROPERTY PART AND THE PART	1123545567869418529634741852963456677899418529634744444444444444444444444444444444444	PART ALBERT ALBERT AND	1 % 5 4 5 1 4 7 8 1 5 2 5 1 5	199 1998 1998 1998 1998 1998 1998 1998	TOTATATATATATATATATATATATATATATATATATAT	84785296307418529633774185296337741852963347668529	TOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTO
39 CT 23 *5 67 89 CT 23 * 5 67 89 CT 2	7849852963474185296333333333333333333333333333333333333	4 1 8 5 1 8 5 2 9 6 1 1 7 7 3 1 7 4 1 7 4 1 7 4 1 1	89911123140852963 2221333333333333400414 2221333333333333344444	107 06555 107 065555 107 065555 1000 0 06555 1000 0 0655 1000 0 0655 1000 0 0655 1000 0 0655 1000 0 0655 1000 0 0655 1000	100 100 100 100 100 100 100 100 100 170 17	173	77777777777777777777777777777777777777		OBELEBER COORDESSES OF COORDESSES OF COORDE
00000007777777778888888888888888888888	2 122 112 143 142 143 143 143 143 143 143 143 143 143 143	28 FEB CO 7 MAR 60 4 MAR 60 18 MAR 60 18 MAR 60 18 APR 60 11 APR 60 11 APR 60 11 APR 60 12 MAY 60 13 MAY 60 14 MAY 60 15 APR 60 16 MAY 60 17 JUN 60 18 JUN 6	4741852963JJT41852963J 444567789JJJT23445067 4444455555555555555555555555555555555	6 MAR 666 13 MARR 666 13 MARR 666 12 MAPR 666 13 MAPR 666 14 MAPR 666 15 MAPR 666 15 MAPR 666 16 MAPR 666 16 MAPR 666 16 MAPR 666 17 MAPR 666 18 MAPR 666 18 MAPR 666 18 MAPR 666 18 MAPR 666	185 135 136 187 188 191 195 197 195 195	127700 2490 36 12249 1391227 1391227 1391227 1391227 1391227 1391227 1391227 139127 13	JUN 68 17 JUN 68 17 JUN 68 1 JUN 66 1 JUN	11803 1190 1190 1190 1190 1190 1190 1190 11	10307 1141 1141 1141 1141 1141 1141 1141 11
89 90	634 2	25 JLY 66 8 AUG 66 18 AUG 66 12 AUG 7 14 AUG 66 14 AUG 66 15 CEC 66	584 594 595 612 612 612 613	317 AUGG 666 17 AUGG 666 14 AUGG 666 14 SEP 666 11 SEP 666 12 SOCCT7 666 12 SOCCT7 666 12 SOCCT7 666 13 NOUV 666 13 NOUV 666 14 SEE 666 14 SEE 666 15 SOCCT7 666 16 SOCCT7 666 16 SOCCT7 666 17 SEE 666 18 SOCCT7 666	TAND A DOT BY THE TO A TO BY BY THE TO THE BY CHEAN AND A TO THE B	1415 1425 1437 1437 1450 1450	1 NOV 68 1 NOV 68 1 NOV 68 1 1 NOV 68 1 NOV	137829 63(7 41 8529 63) 14444 3 4455 0 7 889 0 1223 4 5 4 5 4 5 5 7 8 8 9 5 123 123 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	107 A CONTROL OF CONTR
79999999999999999999999999999999999999	648 648 648 656 656 656 656 656 656 656 656 656 65	29 A DO COLO TO THE PROPERTY OF THE PROPERTY O	04.7 4541 6541 66529 66529 677112334529 677117777885 6811229	2011 66 9 UCC1 66 16 UCC1 66 20 UCC1 66 20 UCC1 66 23 UCC1 66 13 NUV 66 13 NUV 66 14 UECC 66 14 UECC 66 15 JAN 67 16 JAN 67 17 FEB 67 19 FEB 67	22000000000000000000000000000000000000	1418529 b317418529 b317418524 b4444 55555345111111111111111111111111111	31 MAR 64 7 APK 69 14 APK 69 21 APK 69 28 APK 69 20 MAY 69 12 MAY 69 12 MAY 69 20 PAY 69 21 JUN 69 23 JUN 69 23 JUN 69 24 JUN 69 25 JUN 69 26 JUN 69 27 JUN 69 28 JUN 69 29 JUN 69 21 JUN 69 21 JUN 69 21 JUN 69 22 JUN 69 23 JUN 69 24 JUN 69 25 JUN 69 26 JUN 69 27 JUN 69 28 JUN 69 29 JUN 69 21 JUN 69	1-023 14487-1 14487-1 15-12-2 15-2-2-3 15-2-2-3 15-2-2-3 15-2-2-3 15-2-2-3 15-2-2-3 15-2-2-3 15-2-2-3 15-2-2-3 15-2-2-3 15-2-2-3 15-2-2-3 16-3 16-3 16-3 16-3 16-3 16-3 16-3 16	SCIPTION OF SCIETION OF SCIETI

Table 2-1. Conversion Table for Week Number, Continued

BEEK AC.		LAST-BAY	LATE 27 JLY 65	ALLK AC.	E1KSI-JUA 2111	12 CCT 70 19 UCT 70 26 CCT 70	AST-PAY 2117 2124 2131	TE GET TO
240 241	1676 28 JLY (9 1676	3 ALG 65 10 AUG 65 17 AUG 65	3.4 3.15 3.16	2116 2125 2132	19 0ET 75 26 CCT 70 2 NUV 7C	2124	25 OCT 70 1 NOV 70 8 NOV 70
241 242 243 244		9 1697 9 1697	24 AUG 69	307	2139	9 NGV 75	2136 2145 2152	15 NUV 70
245	1793 1 557	9 17.1	7 SEP 65	3 J S 3 1 .	2153 2160	23 NOV 77 3. NOV 70 7 DEC 70	2159	29 NUV 75
247	1719 15 \$5. 1726 22 \$60 1733 29 \$5.4	9 1735	28 SEP 05	311 312 313	2167 2174	7 DEC 70 14 DEC 70 21 DEC 70	2173 2180 2187	13 DEC 70 20 CEC 70 27 DEC 70
249 250 251	1740 6 CCT (9 1739 9 1746 9 1753	5 UCT 69 12 UCT 69 19 UCT 69	315	2161 2166 4195	28 CEC 70	2194	3 JAN 71
252	1754 27 GCT	9 1767	26 DCT 65 2 NOV 65	310	2202	11 JAN 71	2215	17 JAN 71 24 JAN 71
254 255 250	1775 10 NOV	9 1774 9 1781 9 1788	9 NUV 65	31 b 31 b 32 c	2210 2223 2233	2> JAN 71 1 FEE 71 6 FEB 71	2226 2236	31 JAN 71 7 FEB 71 14 FEB 71
257 258	1769 24 NUV (9 1788 1795 9 1802	23 NUV 65 35 NUV 65 7 DEC 65	321	2237	15 FLB 71	2243 2257 2257 2264	21 FEB 71 28 FEB 71
259 26 0	1810 15 DEC	9 1839	14 GEC 55	323 324 325	2258 2258 2265	1 MAR 71 6 MAK 71 15 MAK 71	2264 2271	7 MAR 71 14 MAR 71 21 MAR 71
261 262 263	1824 29 DEC (1037	4 JAN 7L	326	2272	22 MAK 71 29 MAR 71	2278 2285	28 MAK 71 4 APK 71
264	1838 12 JAN 1845 19 JAN	L 1844	18 JAN 76	320 329	2288	5 APR 71 12 APR 71 19 APR 71	2292 2299 2316 2313	18 APK 71
266 267 268	1859 4 FEB	0 1855 0 1865 0 1872	1 FEB 70 9 FEB 70 15 FEB 70	330 331 332	2303 2307 2314	26 APA 71	2313	25 APR 71 2 MAY 71 9 MAY 71
269 270	1873 16 FEB 1880 25 FEB	1879	22 FEB 70	333	2321 328 -335	1: MAY 71	2327	16 MAY 71 23 MAY 71
271 272 273	1894 9 MAR	1893 U 1986	8 MAR 70 15 MAR 70 22 MAR 74	337	2342 2347	24 MAY 71 31 MAY 71 7 JUN 71	2341 2346 2355	30 MAY 71 6 JUN 71 13 JUN 71
274 275	1908 23 MAR 1915 30 MAR	u 1914	29 MAR 70	338	2356	14 JUN 71	2355 2362 2369	20 JUN 71 27 JUN 71
276 277 276	1929 13 APK	0 1921 0 1926 0 1935 0 1942	12 APH 76 19 APH 76 26 APH 70	341 341 342	2377 2377 2304	28 JUN 71 5 JLY 71 12 JLY 71	2376 2363 2390	11 314 71
279 280	1943 27 APK	1949	3 MAY 7C	Ş45	2398	15 JLY 71 26 JLY 71	2397 2434 2411	25 JLY 71
281 282		1903	17 MAY 70 24 MAY 70 31 MAY 70	376	2405 2414 2419	9 AUG 71 16 AUG 71	2418	8 AUG 71 15 AUG 71 22 AUG 71
2 3 3 2 5 4 2 3 5	1476 1 101	1977 1584 1991	31 MAY 76 7 JUN 76 14 JUN 76	348	2426	25 AUG 71 3. AUG 71	2425 2432 2439	29 AUG 71 5 SEP 71
200	1994 13 JUN 1999 22 JUN	. 1996 	21 JUN 70 28 JUN 70	351 3 51	2447 2447 2454	6 SEP 71 13 SEP 71 20 SEP 71	2446	22 AUG 71 5 SEP 71 12 SEP 71 26 SEP 71 26 SEP 71
286	2013 6 JLY	1 26:19	5 JLY 70 12 JLY 70 19 JLY 70	352 353 354	2461 2468	27 SEP 71	2461 2467 2474	13 00 7 71
291 291 292	2:34 27 JLY	21 33	26 JLY 70 2 AUG 71	355 356	2475 2482	11 GCT 71 18 UCT 71	2481	17 CCT 71 24 OCT 71
294 294 295	2 .48 11 AUG	2054	9 AUG 76 16 AUG 76 23 AUG 76	357 358 359	2496 2503	25 GCT 71 1 NUV 71 6 NUV 71	2495 2502 2509	31 GCT 71 7 NUV 71 14 NUV 71
290	2002 24 AUG	20.66	30 AUG 70	360	2517	15 NJV 71 22 NGV 71	250 ¢ 251 o 252 s	21 NOV 71 28 NOV 71
298 299 301	2. 83 14 XFP	2089	13 SEP 70 20 SEP 70 27 SEP 76	362 363 364	2524 2531 2538	29 NEV 71 6 DEC 71 13 LEC 71	2537 2537 4544	12 GEC 71 15 CEC 71
301 302	2357 28 SEP	2116	11 001 70	365	2 54 5	23 bec 71	2544	ZE DEL 71

Table 2-2. AFM 66-1 Source Data Tapes

Tapes	With AFLC Nu	mbers
71	8417	14196
520	8977	14374
706	9164	15985
781	9244	16750
867	9610	16916
962	10681	18685
1210	11767	19257
1641	11961	19643
1841	12370	20449
5345	13255	20720
6265	13423	20782
7036	13836	20790
7728	14124	70333
8077	14175	
Tapes '	With KAFB Nu	mbers
7499	18988	

Table 2-3. AFM 65-110 Source Data Tapes (AFLC Numbers)

	Numbers)							
90149	93094	93568						
90154	93191	93614						
90167	93371	93619						
90275	93418	93784						
90288	93502	93844						
93041	93517	93859						
93054	93536	93910						

The IRAN file is created by an IRAN data preprocessor that combines aircraft acceptance date data and IRAN event data, and that also calculates IRAN interval data by relating information from pairs of consecutive IRAN event records. Prior to executing the IRAN preprocessing program, the acceptance date data and the IRAN event data must be screened to eliminate the excluded aircraft serial numbers. These two data sources are then sorted by serial number and (for the IRAN event data) by calendar date.

The AIE data file is also created by combining data from two sources. Accident and incident data is supplied on magnetic tape, while the EUMR data is obtained from a separate source on cards. Both data sources must be screened to eliminate the excluded serial numbers and the card records must be reformatted to match the format of the tape data. The two files are then sorted and merged to produce the AIE file used as input to the data bank.

Details of data reduction/file generation processes for the 66-1, 65-110, AIE, and IRAN files are contained in Paragraphs 2.2, 2.3, 2.4, and 2.5, respectively.

2.2 AFM 66-1 FILE GENERATION

Since the AFM 66-1 file contains maintenance data that is not relevant to the present

maintenance study, these extraneous data records must be screened out. Following

the screening of each individual tape, the data is sorted into an ordered sequence, then merged with other AFM 66-1 screened and sorted tapes. Experience has shown that many records within the composite file are duplicates; these are eliminated. Finally, only data for a specified set of aircraft serial numbers is required for the data bank. These records are copied to form the final 66-1 file. The logic flow for these programs is shown in Figure 2-1.

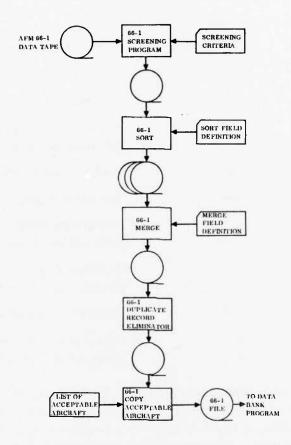


Figure 2-1. Logic Flow of AFM 66-1 File Generation

2.2.1 AFM 66-1 SCREEN

- 2.2.1.1 Purpose. This program, written in COBOL, screens the AFM 66-1 data tapes to eliminate unnecessary and unacceptable records and writes acceptable records on magnetic tape for further processing.
- 2.2.1.2 Input Data and Procedures. The program, a sample of card data input, and the associated job control language (JCL) for use on the IBM 370 are listed in Paragraph 6.1.1.

Input to the program consists of the raw AFM 66-1 tape and a deck of cards containing the screening criteria. Record layouts for the input on AFM 66-1 tapes are shown in Figure 2-2. The tape consists of 90-character data records, blocked 30 to a tape record. The screening criteria card data consists of a deck containing (in order) the data listed on the following page.

Card	Column	Description
a	1-4	Acceptable Aircraft Mission and Design
b	1	Acceptable Identification
c	1-2	Number of Rejected Aircraft
d	1-8	Rejected Aircraft Serial Numbers (Number of Cards Set by Card c)
е	1-8	Lowest Acceptable Serial Number
f	1-8	Highest Acceptable Serial Number
g	1-2	Number of Rejected How- Malfunction Codes
h	1-3	Rejected How-Malfunction Codes (Number of Cards Set by Card g)
i	1-2	Number of Rejected Action-Taken Codes
j	1	Rejected Action-Taken Codes (Number of Cards Set by Card i)

The program first opens the input and output files, reads and stores the screening data, then reads the first AFM 66-1 data record and checks for an acceptable Mission and Design designation, a numeric How-Malfunction code, a valid numeric date, and a non-blank serial number. Then the record is checked for unacceptable How-Malfunction code and Action-Taken code, and the serial number is checked for a full complement of eight digits. In seven-digit numbers, an additional zero is inserted after the second digit.

After confirming the presence of eight digits, the serial number is checked against the highest and lowest acceptable serial number and the list of unacceptable serial numbers for appropriate action. Finally the day number is computed, using 1 January 1965 as Day 1, and inserted into Columns 86 through 89 of the record. The verified record is then written on an output file and the process repeated with the next input record. When the last input record is screened, the remainder of the tape record is filled by nines and the input and output files are closed.

Figure 2-3 shows the screening criteria used in the F-106 Scheduled Maintenance Study. The program is suitable for use with all AFM 66-1 data files for any USAF aircraft (with the following limitations).

a.	Rejected Aircraft Serial Numbers	25 Maximum
b.	Rejected How-Malfunction Codes	8 Maximum
c.	Rejected Action-Taken Codes	8 Maximum

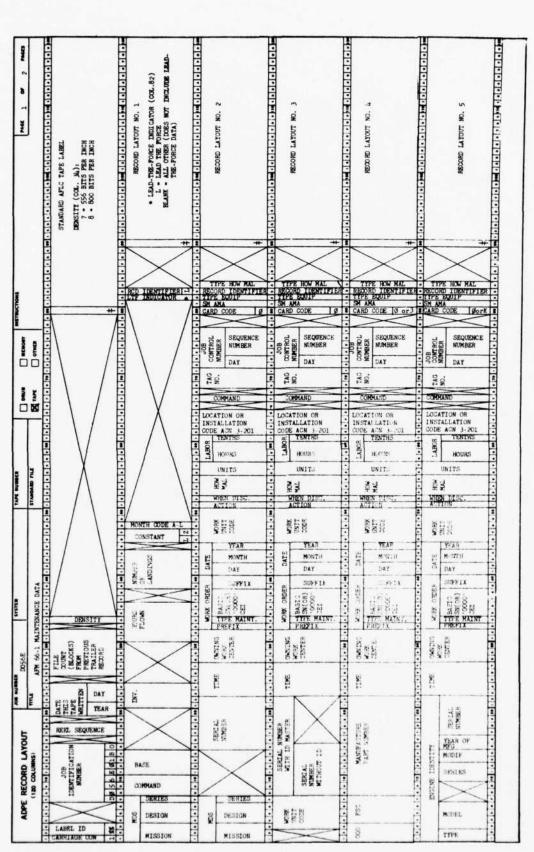


Figure 2-2. AFM 66-1 Tape Record Layouts (Sheet 1 of 2)

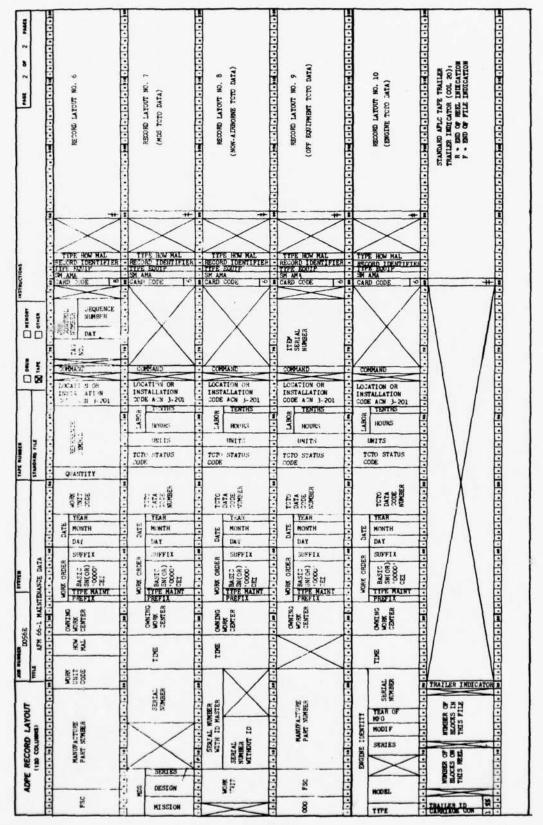


Figure 2-2. AFM 66-1 Tape Record Layouts (Sheet 2 of 2)

3/TH 00				ENGINEER			PAGEOF
00 MD	AWG	EWO-WAP	FUNCTION	ANALYST_			DATE
#1	W-2	W-3	W4	W-5	W4	₩-7	#4
	1121214141417121414	131111111	3 3 3 3 3 3 3 3 3 4 1121314:4:6:7:6:4:0	* * * * * * * * * *	3 5 2 5 5 6 5 6 6 6		,,,,,,,,,
1.06	113/3/6/6/0///3/0/6	1121216161617131818	1121216:6:5(715)6(8	1131314181617191910	11213141616171919191	11313141414141414141	11131310171017
5							
13							1
7,000,234				11111			1
5,7,0,0,02,3,9					*********		1
57,00.0.24.0		********	1111111				
57001523		1	*******			4.	14
7.002.507	*******	1	*****		***************************************		1
7,002,5/3		1	******				1
7007516	1.1111111				**********		
7002519	*****		******	14.114111			1
7002523	*********	····					1
7002529	****						
55000795			*****	******			11111111
5,9,000,061	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		*****				
5.9.0.001.5.0				*****			
5,70,00001							1
9999999		1					1
54			****				+
7.9.9.							
802			4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	11111111			
05		1	111111	11111111		********	+
12		1					-
THE	********						-
<u> </u>		111111111	*******				

S TITLE				ENGINEER			PAGEOF
0 NO	OWA	EWO-WAP	FUNCTION				DATE
#1	W-2	W-3	W4	W-5	W-6	#-7	W4
*******		200002222	,,,,,,,,,,,		******	********	,,,,,,,,
213(413(817)8(4)4	1131316131617181916	3151919191917191919	313131413141316131010	1101214131417:01910	1121314191617181919	113131413161319191	1131314131417161
	*****		******		********		

	*****	* * * * * * * * * * * * * * * * * * * *	******				
	******	********	*****				
							
							1
							1
							<u> </u>
							L
							L
							1
							1
							1
							1
		1					
• • • • • • • • • • • • • • • • • • • •							
	LILLILIA						-

Figure 2-3. Sample Input - AFM 66-1 Screening Criteria

2.2.1.3 Output Description. The sample output, Figure 2-4, shows the same format as the AFM 66-1 data tapes, with the addition of the day number in Columns 86 through 89.

Experience with F-106 AFM 66-1 data tapes on the IBM 370 using 9-track, 1600 bpi tape drives indicates a yield of some 30,000 acceptable records from a total of about twice that number from each input tape. The screening process typically requires five to ten minutes of elapsed computer time. Without exception, a single reel of input was screened onto a single reel of output tape.

2.2.2 AFM 66-1 SORT

- 2.2.2.1 Purpose. This IBM utility program sorts the screened AFM 66-1 data tape into an ordered file.
- 2.2.2.2 Input Data and Procedures. The JCL control cards for the IBM utility program and a sample of card data input for use on the IBM 370 are shown in Paragraph 6.1.2. The input consists of card data defining the sort fields, sort characteristics, and the screened AFM 66-1 data tape. The sort fields are all defined as character fields in ascending order and are shown in the following list in order of hierarchy.

Field	Column	Description
1	15-22	Serial Number
2	86-89	Day Number
3	46-50	Work Unit Code
4	53-5 5	How-Malfunction Code
5	51-52	Action-Taken and When-Discovered Code
6	56-84	*
7	23-45	*

^{*}Fields 6 and 7 are necessary to ensure that any duplicated records will be placed in adjacent order in the output file.

2.2.2.3 Output Description. The sample output, Figure 2-5, shows the same format as the screened output: 90-character data record, blocked 30 to a tape record.

Experience with the sorting of screened F-106 AFM 66-1 tapes on the IBM 370 using 9-track, 1600 bpi tape drives, typically required three to five minutes of elapsed computer time.

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	LATERATED OF THE LATER STATE OF		200	4004				
			5					
	LALLANDE DE TATA DE TATA DE LA CONTRA DEL CONTRA DE LA CONTRA DEL CONTRA DE LA CONTRA DE LA CONTRA DE LA CONTRA DE LA CONTRA DEL CONTRA DE LA CONTRA DE LA CONTRA DE LA CONTRA DE LA CONTRA DEL CONTRA DE LA CONTRA DEL CONTRA DE LA CONTRA DEL CONTRA DE LA CONTRA DEL CONTRA DEL CONTRA DE LA CONTRA DE LA CONTRA DEL CON	90000						
	CLASSING CONTROL AND		3					
	CLASCACOLOSTISTACYA (4) CONTACOCOCOCOCOCOCOCO C		100	*00.4				
	CLALUMBUCAUPINISCY I (AMORT JESSOCCOUNTER L		200	*0.4				
			3	サトルサ				
	つ しゃつかつつけんいっしゅうしゅうしゅうしゅうしゅうかっていっていってい		200	*00.				
	TACAL CALCACTURE AND ALL CALCACT		2	10				
	TATE OF THE PROPERTY OF THE PR		5	1701				
	Carlotte Control of the Control of t		3	44. 7				
			3					
	the Landau Confer of the Landau Conference of			4 (7.5				
	LALLMONE DOTAL AND TOWNSHIP LALLMOND AND THE CONTRACT OF THE C	100	3	#/::				
	THE TATE OF THE PARTY OF THE PA		10.00	*				
	The section of the second section of the section of the second section of the			42.4				
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		2000	****				
	TAPPOPOLITATION CONTRACTOR AND TANAL TOURS AND THE TOURS A		COLASE	* 10 4				
	Common Street (USA (AUCA) JOSEPH CONTRACTOR		UNFAJA	#1-4				
	コール・フィッション・フィー・スペイン・イン・マルションショイン・イーン		UNITALIA	*10*				
	しょうりんしつつつじょうしょうしょうしょうしゃつしつつつつつってつってつ		COLANDO	4004				
	いっちゃりなりのでいっていっていっていっているかっちゃっちゃっちゃっちゃっちゃっちゃっちゃっちゃっちゃっちゃっちゃっちゃっちゃっ		2	4004				
	ליב היה השנינים ביה אים אים ביה היה היה היה היה יה יה יה יה היה היה		UCFASE	*104				
	CLALUMODOLYPINLEDYA (*** LFJEJSULOLIOLIOLIOLIOLIOLIOLIOLIOLIOLIOLIOLIOLI		200	4004				
	or his chold defined by the inclination of the contract of		TOWNOO	***				
	C. ARCIDEDULDETALBUTA PARKENDAL TELECOLOUR C		200	* 131				
	CALLUACUL SOFINE SUST INTT AND AA TULUTULULAY		LUCATON	***				
	CLALCABLL GOTHA DOAL (APPLINOAL TOLOLICATION OF		していまって	* * * * * *				
			The second		Ch <700, t	25	101 47	
	CELECUMOLUTINE 40'SE LAFF EF JEC (LEGGOLOSE C		104100	#00.				
	CELECONOLO PER 4001 (4TT IN JAK (CLOUGH JAJA)		DUFALL	*9C+				
	CLAR CASCIO (PRINCAL (4 PRINT ALL FOLOCOCIONE C		LLATOU	*11.5				
	つ しょうきもつうしょうと コーコピー となって してい しょうこく フィイ・コ		DUCASI	*104				
	LITECACOLO (PENEDENTATIONES EN TOLOGOMONIO		LUFAJI	42.74				
	CLALC ABOUT BEING DUST DALCAS DUSTULOS DUSTULOS DE		LUCKADO	#115				
	CLANCHDULLOFINGS CALLEGE CULCULOLUCION CONTRA		DOFALL	*115				
	CLARUSCOLOFINATIONAL TRUCASION SILECTARANT C		4 TOW 100	47.74				
1700001	CLILCAGODACENTOCAL PARLENCOSADACCOSOLOVIC	1111	JUL HOLD	*101				
	つ ようでいっていっていっているかれないのかないのでいっていっていっている		UCF AJ1	*105				
	CLALL MCGOLYFFILL DALL LUCLIF LICUITUDE CONTROL C		UCFAST	40.5				
	CITICARROLL STREET COLLECT TORONOS COLLECT		TOU LOO	+000+				
	つ しょうりつつつつ マンサンしつてつなったったったったったったったってつ		174.50					
	STATESTON CONTRACTOR TO	3	104100					
	בייו האסים בייו היים ביים ביים ביים ביים ביים ביים ביים		1					
	つ しゅうかうりょうこうこうじゅうかっぱっちゃくろうしゃしんつうつはつっていっ		104100	110				
	CLALCHOCCLATING OUT LICENCE CLOCKCLC CANDING ON THE		DOTAGE	*705				
	CLASCACCUSOFILE COVALUTARILITIOS COLOS CALACAT C		UCFALL	+T0+				
	CELLUNCOLOLOLOS PARTER DE LES		5	*101				
	コーレスプリロスクラインスクージようひょう すんつかいれにしつつつのかつしょう		LUCK AST	オハハサ				
	CLALCHOUCLASTIC OCYALICOAUPACTUCIO COLLEGAR C		CULTAL	*201				
	こ しょうけつけつけついついっしょっちょうかっちょうないのかっちゃっちゃっちゃっちゃっちゃっちゃっちゃっちゃっちゃっちゃっちゃっちゃっちゃっ	00/00		サハウカ				
	CITTON OF THE STANDARD CONTOURNESS OF THE STANDARD CONTOUR		TA LO	+101				
	בייין ביין בייין ב		3					
2000	TARREST TO TO TO TO TO THE TOTAL TO TO THE TOTAL THE TOTAL TO THE TOTAL THE TOTAL TO THE TOTAL THE TOTAL TO T			7.7				
	יייייייייייייייייייייייייייייייייייייי		5					
	The state of the s			*				
	The state of the s							
	מי בר בעם		-		,	4	A. Inl	
	TATACACCOUNTY TO COAT HOUSE CABOURDED	חפדנהר	LUFAUL	4774		<u></u>		
•,	- דר האסרהסקר ייר - האד לאהקדב האי הדמה החסקה האר		2	4765				
••	י ברנאטנטר מריני זייריו וארני ארייי אריי ארי אר		COLPASA	4774				
•	ב בר טאמיטי לרויה אני זו בניייני בי זיט זרים בר הרוים בי מונים בי ב		2	4704				
•	יייני שפיסור פרוצי לרוצי יידו די ביוד אחר מרומים מוצי		Tour State	0				
•	יייייייייייייייייייייייייייייייייייייי		1	4				
	The second secon		3					
	ביי		5	4 4 4				
	は、「これのこのできない」では、「これのこのできない」では、「これのこのできない」できない。「これのこれできない」では、「これのこれできない」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、「これのできない。」では、これのできないでは、これので		3	* 733				
	サナラナラコラウィードックション・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・			***				
			2	*101				
	** なんしみむひじょひじがよ フしゃ プキカルし ずじら プレレッししょ マンカル		200	47.54				
1000 - 10	アカライナウングラウィイウラ 4イベント・イベウー 151111 11 11 11 11 11 11 11 11 11 11 11		CULTALL	4759				

Figure 2-4. Sample Output - AFM 66-1 Screening Program

	.	
	101	<u>.</u>
4 706. BLA	414 COOK	
5	5	5
		*
	1 1000 111 111 1200 000 000 100 100 100	33333333333333333333333333333333333333
7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.		33344333344
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		110111111111111111111111111111111111111
414414141414141414141414141414144444444	1 11 11 11 11 11 11 11 11 11 11 11 11 1	03505050005 03505050005 0350505005

Figure 2-5. Sample Output - AFM 66-1 Sort Program

2.2.3 AFM 66-1 MERGE

- 2.2.3.1 Purpose. This IBM utility program merges the screened and sorted AFM 66-1 data tapes into a single file of data.
- 2.2.3.2 Input Data and Procedures. The JCL control cards for the IBM utility program and a sample of card data input for use on the IBM 370 are listed in Paragraph 6.1.3. The input card data is identical to that used in the AFM 66-1 Sort.
- 2.2.3.3 Output Description. Merging of 48 F-106 AFM 66-1 screened and sorted tapes on the IBM 370 using 9-track, 1600 bpi tape drives required a total of eight merges, each routine merging seven tapes. In the first step, seven screened and sorted tapes were merged (generally to one, occasionally to two tape reels). This was repeated for each group of seven tapes. These steps required 5 to 10 minutes of clock time. The final step, merging these intermediate tapes, required 20 to 30 minutes of elapsed computer time, and the file consisted of five data tapes. The total file contained approximately 1,600,000 records. The output tape has 90 characters to a data record, blocked 30 to a tape record and has identical format to that of the AFM 66-1 sort output data tape.

2.2.4 AFM 66-1 ELIMINATE DUPLICATE RECORDS

- 2.2.4.1 Purpose. This COBOL program eliminates duplicate records from the screened, sorted, and merged AFM 66-1 file.
- 2.2.4.2 Input Data and Procedures. The JCL control cards for use on an IBM 370 and the program are listed in Paragraph 6.1.4.

The input consists of the screened, sorted, and merged AFM 66-1 data tapes. The program opens the input and output files and reads and stores the first data record. The next record is then read and compared to the previous record. If all 90 characters are identical, the second record is moved over the first, the next record read, and the process repeated. If they are dissimilar, the first record is passed to the output file and the second record is stored for the next comparison. Upon detection of a series of nines on the input, the remainder of the output block is filled with nines and both input and output files closed.

2.2.4.3 Output Description. Screening, sorting, and merging of some 1,600,000 F-106 AFM 66-1 records yielded over 100,000 duplicate records. The number of duplicated records is displayed on the computer console. The program required 30 to 60 minutes of elasped computer time, and required four output data tapes. The record layout and the blocking factor are unchanged from the AFM 66-1 sort.

2.2.5 AFM 66-1 COPY ACCEPTABLE AIRCRAFT

2.2.5.1 Purpose. During the initial screening of the AFM 66-1 data tapes, records for a specified set of aircraft serial numbers were deleted. During formulation of the data bank, only data for a specific fleet of aircraft is necessary. This COBOL program writes these acceptable aircraft records on a magnetic tape to form the new AFM 66-1 file.

2.2.5.2 Input Data and Procedures. The JCL control cards, the program, and a sample of the card data input are listed in Paragraph 6.1.5. The input consists of card data defining the acceptable aircraft serial numbers. The first card defines the number of acceptable serial numbers, and subsequent cards define the serial numbers in ascending sequence.

Card	Column	Description
a	1-3	Number of Acceptable Aircraft
b	1-8	Acceptable Serial Numbers (ascending sequence)

The complete list of acceptable aircraft is shown in Table 2-4 and a sample input to this program in Figure 2-6. The program input and output files are opened, and the list of acceptable aircraft serial numbers is stored in the computer memory. The AFM 66-1 data file is read and records with an acceptable serial number are written on the output file. On detection of the last input record, the remainder of the output block is

Table 2-4. Tail Numbers of Acceptable Aircraft									
T/P DTG1	18.23.21	72/073	BLK	CNT	020	LENGTH	080	CONTROL	2090
•••••••••••••••••••••••••••••••••••••••	2	• • • • • •	3	• • • •	4.	•••••	.5	6 .	••••

Table 2-4. Tail Numbers of Acceptable Aircraft, Continued

```
T/P DTO1
                                   18.23.21 72/073 BLK CNT 020 LENGTH 080 CONTROL 2080
57002493

57002494

57002503

57002504

57002508

57002515

57002517

57002524

57002528

57002528

57002533

57002533
57002540
57002543
570025445
570025460
570025460
580007767
580007777
580007777
580007780
580007780
580007885
580007885
58000786
58000788
58000792
58000797
58000900
58000901
58000903
58000904
58000904
59000002
590000005
590000006
590000007
590000010
590000115
59000015
59000018
59000018
59000019
59000024
59000025
59000026
59000027
59000028
59000030
59000031
59000035
```

Table 2-4. Tail Numbers of Acceptable Aircraft, Continued

e TIPLE							matar
00 10	_/##)	EMO-HIV	JUNCTION	ANALYST			MAT
W-1	W-2	94	W4	94	*4	W-7	#4
8 8 8 8 8 8 8 8	1 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 3 3	3 5 5 5 5 5 5 5 6 1:2:0:0:0:0:7:0:0:0	4 4 4 4 4 4 4 8 8	1	6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	777777777
21.9							
7.000231.							
7.00023.2							1
7.00.0.2.3.5.	***			*****	*******		
7.(1.)236	******		*******	******	*******		······
700027				*******			
7000243	*****	*******		******	******		· · · · · · · · · · · · · · · · · · ·
70.0.22.44	******	*****		*******			++
7.0.0.0.25.5	*****				*******		• • • • • • • • • • • • • • • • • • • •

7.00.025.6			*******				.
7.00025B							4
							4
			 				
		1	l			1	
							1
			1		*******	******	
	*******		1	*******		*****	+
	*****			*******			

	*****						4

Figure 2-6. Sample Input — Acceptable Aircraft Program

filled with nines and the input and output files are closed. A count of the number of records read and records copied is displayed on the computer console.

The program is suitable for use with all screened and sorted AFM 66-1 data files for any USAF aircraft and will handle a maximum of 250 serial numbers.

2.2.5.3 Output Description. The record layout and the blocking factor are unchanged from the AFM 66-1 Sort. Experience with the AFM 66-1 file for the F-106 on the IBM 370 for a file of approximately 1,500,000 records produced some 1,010,000 records that were copied for the AFM 66-1 data bank. The program required 20 to 40 minutes of elapsed computer time and required three output data tapes.

2.3 AFM 65-110 FILE GENERATION

The AFM 65-110 file contains data that is not relevant to the present maintenance study and it is necessary to screen* out these extraneous data records. Following

^{*}Because the original 65-110 tape data is classified, certain fields were blanked out of every record to declassify the data. The program required to copy and eliminate these data fields is not described in this manual, nor was it delivered as a contract end item. It is assumed that the user will have authorization to process the 65-110 data without declassification.

the screening process, the file is sorted into an ordered sequence, then merged with other similar AFM 65-110 screened and sorted tapes. Experience has shown that many of the records are duplicated; these are removed. Finally, only data for a specified set of aircraft serial numbers is required for the data bank, and these records are copied to form the final AFM 65-110 file. The logic flow for these programs is shown in Figure 2-7.

2.3.1 AFM 65-110 SCREEN

2.3.1.1 Purpose. This program, written in COBOL, screens the AFM 65-110 data tapes to eliminate unnecessary and unacceptable records and writes acceptable records on magnetic tape for further processing.

2.3.1.2 Input Data and Procedures. The program, a sample of card data input, and the associated job control language (JCL) for use on the IBM 370 are shown in Paragraph 6.2.1. Input to the program consists of the raw AFM 65-110 tape and a deck of cards containing the screening criteria. The record layouts for the AFM 65-110 tape are shown in Figure 2-8. The tape consists of 60-character data records, blocked 50 to a tape record. The screening criteria card deck consists of a deck containing, in order, the following.

Card	Column	Description
a	1-4	Acceptable Aircraft Mission and Design
b	1-2	Number of Rejected Aircraft
c	1-8	Rejected Aircraft Serial Numbers (Number of Cards Set by Card b)
e	1-8	Lowest Acceptable Serial Number
f	1-8	Highest Acceptable Serial Number
g	1	Maintenance Code Corresponding to Periodic Inspection
	2-6	Work Unit Code for Periodic Inspection
	11	Maintenance Code Corresponding to Hourly Postflight Inspection
	12-16	Work Unit Code for Hourly Postflight Inspection

The program opens the input and output files, reads and stores the screening data, then reads the first AFM 65-110 data record and checks for an acceptable Mission and Design designation, a valid date, and a non-blank serial number. Then the serial number is checked against the highest and lowest acceptable serial numbers and the

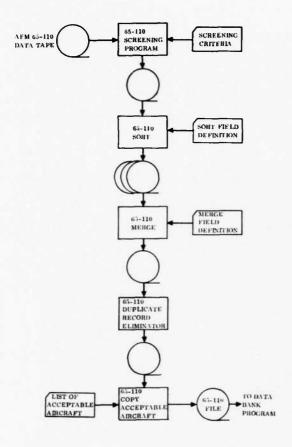


Figure 2-7. Logic Flow of AFM 65-110
File Generation

list of unacceptable serial numbers for appropriate action. If the WUC field is blank, the Maintenance Code field is tested for a code corresponding to the Periodic Inspection or Hourly Postflight Inspection and the appropriate WUC entered into the output record. Finally, the day number is computed using 1 January 1965 as day number 1 and inserted into Columns 49 through 52 of the output record. Upon screening of the last input record, the remainder of the life record is filled by nines and the input and output files closed. Figure 2-9 shows the screening criteria used in the F-106 Scheduled Maintenance Study.

The program is suitable for use with all USAF aircraft with the following program dimension limitation: a maximum of 25 rejected aircraft serial numbers is allowed.

2.3.1.3 Output Description. The sample output, Figure 2-10, shows the same format as the AFM 65-110 data tapes, with the addition of the day number in Columns 49 through 52.

Experience with the F-106 AFM 65-110 data tapes on the IBM 370 indicates approximately 8,000 acceptable records are available from a total of 10,000 records on each input tape. The screening process required two minutes of computer time.

2.3.2 AFM 65-110 SORT

2.3.2.1 Purpose. This IBM utility program sorts the screened AFM 65-110 data tape into an ordered file.

2.3.2.2 Input Data and Procedures. The JCL control cards for the IBM utility program and a sample of card data input for use on the IBM 370 are listed in Paragraph 6.2.2. The input consists of card data defining the sort fields, sort characteristics,

RECORDS AND WORK AREAS AFM 65-110 (60 CPR/3000 CPB) FORM 5046 (REV. 7-70)

RECORD NAME	Record Ty	d Ty	2	1	9	-Possessed Hours	9	H	Ĕ			1																	-		ĺ				1		li .		1						ı		-
			-	-																	-	-				-			-	-			_				-		-			-		-			7
	MDS	SC		_			00	ani	Organization	ior	-		L.,						gu 16		-		_		Pos.	s.	1	1		1	_		1	1	1			1	K			—	10	Date	1		-
FIELD	noissi M	Dengu	Series	Mod, Mis.	TIAL TOP STO	Kind		Type			Number			Command		,,,,,,	Relion	Code	Auign./St	Code	SEA/LTF	AMA Code			± sanoH	Tenthe			V	/			Serial	Number				\times	\longrightarrow				Year	nailut	Day	Red, ID	++
CHARACTER			0										-	•		No	:			100			-	me	:	-		m	-	\vdash		-			-	1			- "	——	_		- 5				9
	1		-1			-1	2	1	- 1	- 1	- 1	1	I	⊣ 1	⊣ 1	⊸ 1	-4 1	⊣ ∣	- 1	⊣ I	1 1			- 1	7	2		- 1	0	•	P.		2	6	•	9	2	•	6	=	2	3 4	_	9	•	6	
RECORO NAME	Record Ty	d Ty	2	2Maintenance Data (NORM-NORS)	¥ .	int	Ena	20	0	a ta	2	Ö	3	N	18	-																													11		-
					-					\vdash							-				-	-			-	-			-	-		-	-			-	-		\vdash			_		-			
	X	MDS				٦	26	ani	Organization	ion			,						sult		_				Main	iin					_						Κ.	1/			1	-	1	Date			
FIELD	noissi M	Design	Series	Mod, Mis	TIM 'CERTO	Kınd	7 1 3	Type	.,.		илирец			Соттана		00.46.43	Statton (?ode		Assign./Sta	3boD	SEA/LTF	AMA Code	Maint, Co		Hours	Tenth		MOTH	Code	3000			Settal	Number						\vee			Year	nsilut	Day	Rcd, ID	++
										_	_		_				-								-	_		_	-				-			-	-		-		-			-	\sqsubseteq		
CHARACTER	1 2 3 4	4	ON	- 4		0	-0	-	2			٥	,	•	0	NO	- 7	<u>e</u>	•	NID	2	•	69	mo	- 2	m	-	min	1		0	40	- 2	6	•	4 10	10		90	-	7		N N	1 9	60		90
RECORD NAME	Record Ty	d Ty	1 8	3-6-	II	-Utilization Data	iza	1 3	l c)ate	1						-														Ш						11						11	1]	11	11	7 -
					-					-	-							-			-							-	-	-		-	-			-	-		-		<u> </u>	-		-			_
	Z	MDS			لِــا	٥	7.82	nus	Organization	5			—						en le			_	100		H	Flight	_	-	1	-		1	1		1	1	K	1/	1		1	_	10	Date	T		
FIELD	Mission	Design	Series	Mod, Mis.	C1022' MIT	Kind		Type	. 17 -		Number			Command		notiets	Code		ABLEIL, /St.	Code	SEA/LTF	Geog, Are	Mis. Symi	Mis. Type	Hours F	Tembi	sgnibne.1	-9	Soities	$\geq \leq$			Setial	120111041									Year	neilul	Day .	Red. ID	++
,		-		-		1					-	-																	-			-	-				-		-		_			-			
CHARACTER	- 2	3	OW	9	7	60	-0	-	~	6	-10	•		•	o	NO		3	•	N KO	- '	- 0	6	MO	- 2	<u></u>	4	e vo	6 7		0	40	1 2		•	410	9	•	90	-	2 3	-	N/A	- 6		0	90
			1	1	1	1			1			1		1					-		1					-										j											٦

Figure 2-8. AFM 65-110 Tape Record Layouts

00 TV9LE				mement			M4E0F
10 MA			Anction	AMALYET			DATE
W-1	8-2	81	84	94	194	W-7	94
1121210101017101010	11111111	1	3 8 8 8 8 3 3 3 3 4		6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	10 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1777777777
F1.06							
13							1
57.0.00234							1
5,70.0.023.9.							
570.00.240.							
7001523.							1
57D.02507		1		1		*******	
57002513	******	1		*********			1
5,7,9025.16		1			 		1
57,90,2519	*********	1					+
5,7002523.	********			11111111			1
5.7002529	*****						+
5.80007.95	******		******	****			
59000061							1
5,90001.50					····		+
57,000001.	*****						
5,9,9,9,9,9,9	******		*****				
C5.27.20	D03300	····	******				+
	3,3,3,0,				****	 	+
******	*****	1		******	*****		+
•••••					*****		+
		1	1		****		+
				 	-8-4-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		
				*******	******		
*****				*******			

Figure 2-9. Sample Input — AFM 65-110 Screening Criteria

and the screened AFM 65-110 data tape. The sort fields are all defined as character fields in ascending order. The sort fields in order of hierarchy are:

Field	Column	Description
1	39-46	Serial Number
2	49-52	Day Number
3	59	Record ID
4	34-38	Work Unit Code or Landing and Sortles
5	29	Maintenance Code or Mission Symbol
6	1-27	*
7	30-33	*

^{*}Fields 6 and 7 are necessary to ensure that any duplicated records will be placed in adjacent order in the output file.

2.3.2.3 Output Description. The output tape file structure consists of 60-character data records, blocked 50 to a tape record. Sample output is shown in Figure 2-11. Two minutes of IBM 370 time was required to screen a typical F-106 AFM 65-110 tape.

70	• • • ma 0	•	m [*]
8 '	•		
AGE	• •	-	_
•	•0	•	0
	• • • • •	·	
	20001000000000000000000000000000000000	できてていることできるとしているというないできるというないできませる。これを見るとしているとしているというないとしているとしているというないというないというないというないというないというないというない	マートングントンニー イングングング クローングングングングングングングングングングング といって イングングング といってい アイヤ ちじゅうちゅうしゅう というしょう アンジャング アング アンジャング アンジャング アング アンジャング アンジャング アンジャング アンジャング アンジャング アンジャング アンジャング アング アンジャング アング アング アング アング アング アング アング アング アング ア
	• 22222222222222222222222	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	777777777777777777777777777777777777777
	o_1 .	X	**ouuuuuuuuuuuuuuuu
	• 444444444444444444444444	VULLEUR 2000000000000000000000000000000000000	
	60 60 60 60 60 60 60 60 60 60	อนที่มาการที่ B &	ระหน้าสนาที่บานนกับภายนานนานนาน .
	muggggggggggggggggggggggggg	MOCOOOCOCHAHAAAAAAAAAAAAAAAAAAAAAAAAAAAA	MANAGE PARTICIPATION OF THE PROPERTY OF THE PR
	MANAMANAMANAMANAMANAMANAMANAMANAMANAMAN	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	70000000000000000000000000000000000000
	000000000000000000000000000000000000000	000000000000000000000000000000000000000	777777777777777777
	000 T 40F 90 SA	00	000000 00001 1 0 1111 1
	. 7	74AR1 74AR1 74AR1 748T1 748T1 748T1 74P1 11JD1 10JD1 1	24.02.02.00.00.00.00.00.00.00.00.00.00.00.
	00000000000000000000000000000000000000	004040000000000000000000000000000000000	000000000000000000000000000000000000000
o	000000000000000000000000000000000000000	40000000000000000000000000000000000000	m
	4 0 0 4 FF4 0 F44	-4 4 -4 4-44 ZZ Z44	
	• ************************************		
	22222222222222222222222	222222222222222222222222	OOOOOOOOOOOTITITI
8 9	TARREST STATEMENT OF THE STATEMENT OF TH		PARTIE STATE
200	• 0000000000000000000000000000000000000		000000000000000000000000000000000000000
200	$egin{array}{c} egin{array}{c} \egin{array}{c} \egin{array}{c} \egin{array}{c} \egin{array}{c} \egin{array}{c} \egin{array}$	000000000000000000000000000000000000000	x_0
,	\$200333333333555555555555555555555555555	99336335393936339336533939	00000000000000000000000000000000000000
	######################################		22222222222222222222222222222222222222
6	•		
	• वयववयववयवयववयववयवयव	<i>αααααααααααααααααααααααααααααααααααα</i>	বৰবৰৰ্ববৰৰ্ববৰৰ্ববৰং নবৰৰ
9		000000000000000000000000000000000000000	000000000000000000000000000000000000000
~	· ####################################		
7		VIONENTAL AND CONTRACTION OF THE VIOLENTAL AND CONTRACTION OF THE	これには、これのこれを見るとのととととととととととととといっているとととというというというというというというというというとしているというというというというというというというというというというというというと
Z		を できた できた できた できます できます かんり とうとう とうとう とうとう とう とう とう かん を を を を を と と と と と と と と と と と と と と	とこれを見るなるなるとうとうとうとうとうことと
3		rrrrrrrrrrrrrrrr	
0	44500000000000000000000000000000000000	00000000000000000000000000000000000000	44444444444444444444444444444444444444
71	 จังจังจังจังจงงงงงงงงงงงงงงงงงงงงงงงงง	444444444444444444444444	4444444444444444444444444
I	000000000000000000000000000000000000000		
2		ก็ดีก็ก็ก็ก็ก็ก็กิดกลกลกลกลกลกลกลกลกลก พ.พ.พ.พ.พ.พ.พ.พ.พ.พ.พ.พ.พ.พ.พ.พ.พ.พ.พ.	
E.	00000000000000000000000000000000000000	77777777777777777777777777777777777777	20000000000000000000000000000000000000
20			
3	· doos - zalsino aras	1 1 2 11 10 10	141 110 111 111 111 111
8	1620 0 000200 0 20000 0	* 0 6 7 6 1 1 1 1	74A 74A 01C 130 130
4	######################################	484444444444449444444444 48444444444444	CORONO DE METOR DO CONTROL DE SE
٣ ٠	A TATA TATA TATA TATA TATA TATA TATA T	A PR B COUCHA A A A A A A COUCHAND	A A A B B A A B B B B B B B B B B B B B
12	•		
3			
72	90900000000000000000000000	000000000000000000000000000000000000000	WAXAXAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
4 0	444444444444444444444444444444444444444	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	######################################
26.		00000000000000000000000000000000000000	
•			アアアアアアアアアアアアンションスのはなり
= ;	######################################	000000000000000000000000000000000000000	20000200000000000000000000000000000000
	· ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	$ \omega$ ω ω ω ω ω ω ω ω ω	77777777777777777777777777777777777777
	CZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		ZZZZZZZZZZZZZZZZZZZZZZZZZ <u> </u>
TU12			
4			
-			

Figure 2-10. Sample Output - AFM 65-110 Screening Program

Figure 2-11. Sample Output - AFM 65-110 Sort Program

2.3.3 AFM 65-110 MERGE

- 2.3.3.1 Purpose. This IBM utility program merges the screened and sorted AFM 65-110 data tapes into a single file.
- 2.3.3.2 Input Data and Procedures. The input data comprises the screened and sorted AFM 65-110 data tapes and the input card data defining the merge fields. The JCL control cards for the IBM utility program and a sample of card data input for the IBM 370 are listed in Paragraph 6.2.3. The input card data is identical to that used in the AFM 65-110 Sort, as shown in Paragraph 2.3.2.2.
- 2.3.3.3 Output Description. Merging of 21 F-106 AFM 65-110 screened and sorted tapes on the IBM 370 required a total of four merges. In the first step, seven screened and sorted tapes were merged to one tape reel. This was repeated for the other 14 tapes. These steps required three to five minutes of elapsed time. The file contained 480,000 records and required one reel of tape. The output format is the same as that used for the AFM 65-110 sort output data tape.

2.3.4 AFM 65-110 ELIMINATE DUPLICATE RECORDS

- 2.3.4.1 Purpose. This COBOL program eliminates duplicate records from the screened, sorted, and merged AFM 65-110 file.
- 2.3.4.2 Input Data and Procedures. The JCL control cards for use on an IBM 370 and the program are shown in Paragraph 6.2.4. The input consists of the screened, sorted, and merged AFM 65-110 data tapes. Operation is identical to that of the corresponding program for the AFM 66-1 file in Paragraph 2.2.4.2.
- 2.3.4.3 Output Description. Screening, sorting, and merging of approximately 485,000 F-106 AFM 65-110 records yielded over 36,000 duplicate records. The number of duplicate records is displayed on the IBM 370 and required one output reel. The record layout and the blocking factor are unchanged from the AFM 65-110 sort.

2.3.5 AFM 65-110 COPY ACCEPTABLE AIRCRAFT

- 2.3.5.1 Purpose. During the initial screening of the AFM 65-110 data tapes, records for a specified set of aircraft serial numbers were deleted. During formulation of the data bank, however, only data for a specific fleet of aircraft is necessary. This COBOL program writes these acceptable aircraft records on a magnetic tape to form the new AFM 65-110 file.
- 2.3.5.2 Input Data and Procedures. The JCL control cards, the program, and a sample of card data input are listed in Paragraph 6.2.5. The input consists of the AFM 65-110 merged file (with any duplicate records removed) and a card deck defining

the acceptable serial numbers. The input card deck and operation of the program are identical to those for the AFM 66-1 file in Paragraph 2.2.5.2.

2.3.5.3 Output Description. The output record layout is the same as the AFM 65-110 sort. The F-106 AFM 65-110 file of approximately 480,000 records yielded some 300,000 records for the new AFM 65-110 file, requiring five minutes of computer time and one reel of tape.

2.4 AIE FILE GENERATION

The AIE file comprises data from two sources: handwritten Accident/Incident data supplied by SAAMA and magnetic tapes containing Accident/Incident/EUMR data (see Table 2-5). The two sets of data are converted to the same format, the files merged, and any duplicate records removed. Only data for a specified set of aircraft serial numbers is required for the data bank, and these records are copied to form the new AIE file. The logic flow for these programs is shown in Figure 2-12.

Table 2-5. AIE Data Sources

1.	Source	Data Tapes
	KAFB	9490
	KAFB	10479
	KAFB	18609
	KAFB	30324
	KAFB	38816

2. Other Sources

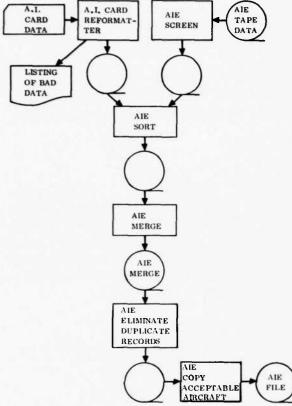
Listing of F-106 Accident/Incident/EUMR Data - February 1969 through November 1971

Handwritten F-106 Accident Data for 1970 and 1971 (19 records)

Handwritten F-106 Incident Data for 1970 and 1971 (139 records)

2.4.1 ACCIDENT/INCIDENT FORMATTER

- 2.4.1.1 Purpose. This program, written in COBOL, converts the Accident/Incident card data to magnetic tape in a format compatible with the Accident/Incident/EUMR data tapes.
- 2.4.1.2 <u>Input Data and Procedures</u>. The program, a sample of card input, and the associated job control language (JCL) for use in the IBM 370 are listed in Paragraph 6.3.1.



Input to the program is a deck of cards containing the AI data in the following format.

-	Column	Description
	2-3	First two digits of serial number
	5-8	Last four digits of serial number
	10-11	Day of report date
	12-14	Three-character abbreviation for month of report date (e.g. JAN, FEB)
	15-16	Two-digit year of report date
	19	Report Code I = incident 1 = accident (category 1) 2 = accident (category 2)
	21-25	Work Unit Code
)	26-80	May be blank, or may be used to further describe the report.

Figure 2-12. Logic Flow of AIE
File Generation

The data must have been previously screened to eliminate unacceptable serial numbers, dates prior to 1 January 1965, and bad or blank work unit codes. The program is

suitable for use with AI data from any USAF aircraft, provided the card data is in the correct format.

2.4.1.3 Output Description. The output record layout is shown in Figure 2-13, and a sample output is given in Figure 2-14. The tape has 50 characters to a data record, blocked 60 to a tape record.

	WORK UNIT CODE		TYPE REPORT		SERIAL NUMBER		INDICATOR	DAY NUMBER	RECORD MARK
1 2 3 4 5 6 7 8 9 0	1 2 3 4 5	6 7 8 9 0 1 2	3 4	2 5 6	7 8 9 0 1 2	3 4 5 6 7 8 9 0 1 2	3 4	4 5 6 7 8 S	5

Figure 2-13. AI Reformatter Record Layout

	*	ė
	E	-
	2. 10	• • • • • • • • • • • • • • • • • • •
	8 K	8 K
	3000€	3000
	ī	5
**************************************	00000100000000000000000000000000000000	0-00-0-00-00-00-00-00-00-00-00-00-00-00

00000000000000000000000000000000000000	00000000000000000000000000000000000000	7373741000000000000000000000000000000000
######################################	AWATHERMAN	000mm040mm40m40m
*****		######################################
00000000000000000000000000000000000000	000000000000000000000000000000000000000	
	/ WWW.WW.W.W.W.W.W.W.W.W.W.W.W.W.W.W.W.W	00000000000000000000000000000000000000
AND THE TOWN	MANUALELUNININININININININININININININININININI	

Figure 2-14. Sample Output - AI Reformatter

Experience with the data made available for the F-106 showed many records without a work unit code, and these were discarded. The elapsed computer time to run the Reformatter program was one to two minutes on the IBM 370; the output required one reel of magnetic tape.

2.4.2 AIE SCREEN

- 2.4.2.1 Purpose. This program, written in COBOL, screens the AIE data tapes to eliminate unnecessary and unacceptable records and to write acceptable records on magnetic tape for further processing. Acceptable records must have correct Mission and Design. Records containing unacceptable serial numbers and bad date information are rejected. The output record has an additional field that contains the day number, using 1 January 1965 as day one.
- 2.4.2.2 Input Data and Procedures. The program, a sample of eard input, and the associated JCL for use on the IBM 370 are listed in Paragraph 6.3.2. Input to the program consists of the raw AIE data tape and a deck of cards containing the screening criteria. The record layout for the input AIE data is shown in Figure 2-15. The tape has 90 characters to a data record, blocked 30 to a tape record. The screening criteria card deck consists of a deck containing the following (in the order shown).

Card	Column	Description
a	1-4	Acceptable Aircraft Mission and Design
b	1-2	Number of Rejected Aircraft
c	1-8	Rejected Aircraft Serial Numbers (Number of cards set by card b)
d	1-8	Lowest Acceptable Serial Number
е	1-8	Highest Acceptable Serial Number

The program opens the input and output files, reads and stores the screening data, then reads the first AIE data record and checks for an unacceptable Mission and Design designation and a valid date. The serial number is then checked against the highest and lowest serial numbers and against the list of unacceptable serial numbers for appropriate action. Finally, the day number is computed, using 1 January 1965 as day one, and inserted into Columns 45 through 48 of the record. The verified record is then written on an output file and the process repeated with the next input record. Upon screening of the last input record, the remainder of the output tape record is filled with nines and the input and output files closed. Figure 2-16 shows the screening criteria used in the F-106 Scheduled Maintenance Study.

The program is suitable for all AIE data tapes for any USAF aircraft, with the following program dimension limitation: a maximum of 25 rejected aircraft serial numbers is allowed.

2-28

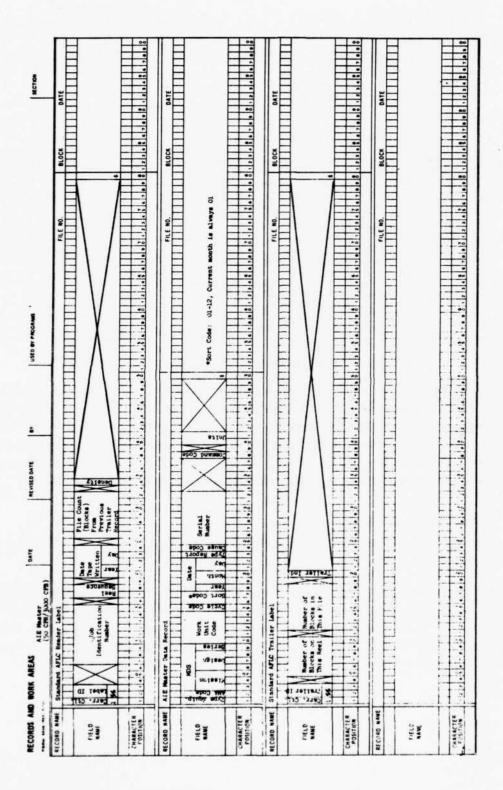


Figure 2-15. AIE Tape Record Layouts

			N COLUMN GENE	RAL PURPOSE FO	THE STATE OF THE S		ner or
00 T/TL/		EWO-WAP	FUNCTION	EMBANEER _ANALYST_			BATE
W-1	W-2	#13	₩4	#4	#4	W-7	114
• • • • • • •	11111111				********		********
F1.06	112(314131413101010	5121214191617161919	1121210191017101019	11212141414141417141414	1131314191413181814	112121012101210	12.0 12.2 12.0 12.0 12.0
3							
7009254							
7000239						l	
7.0002+0.							
7.00.1.523.							
7.002507.							
7002513							
70.02516							
70.025,19							
7.0.0.2523						1	
7002529							
8.000,795							
9000061							
9.000/50.							
7,000,001	1						
999999							
							
	1						
	1						سيستنين
	1						
						***	444444
1000 (007 11 40)	سسسب	ليتبينيا	ببينينيا			بتنتينا	سيسيلب

Figure 2-16. Sample Input - Screening Criteria for AIE Tapes

2.4.2.3 Output Description. The sample output, Figure 2-17, has the same format as the AIE data tapes, with the addition of the day number in Columns 45 through 48. Experience with the F-106 AIE data tapes on the IBM 370 indicated that the data was very sparse, with an average of only 50 records per data tape. The majority of the AIE data came from the listing, which had approximately 1500 records. Screening of these 1500 records required about one minute of computer elapsed time.

2.4.3 AIE SORT

- 2.4.3.1 <u>Purpose</u>. This IBM utility program sorts the screened AIE data tapes into an ordered file.
- 2.4.3.2 Input Data and Procedures. The JCL control cards for the IBM utility program and a sample of card data input for use on the IBM 370 are listed in Paragraph 6.3.3. The input consists of card data defining the sort fields, sort characteristics, and the screened AIE data tape. The sort fields are all defined as character fields in ascending order. The sort fields in order of hierarchy are:

Field	Column	Description
1	25-32	Serial Number
2	45-48	Day Number
3	10-14	Work Unit Code
4	1-50	*

^{*}Field 4 is necessary to ensure that any duplicated records will be placed in adjacent order in the output file.

_	• •	•	•
00	•		
PAGE			
A	÷		
	•	• N	
	•		
	·		5
	<u>.</u>	± •	•
	K 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
	<u>~</u>	,	=
	• ■	5	5
		2000	1246332211544 12463322115443 12463322115443
4	000000000000000000000000000000000000000	C000000000000000000000000000000000000	הפיחנים כמה מבים בים
	• 0000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000
	•		
c.	WASCACTHINANANANANANANANANANANANANANANANANANANA	44444444446699 www.to.oco.cumononwww.nww.nonono.o	00rr00CCHHWWW4
บออก		00000000000000000000000000000000000000	######################################
ůvů	• 000000000000000000000000000000000000	\(NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN	00000000000000000000000000000000000000
ç.	 στισόσσσόσσποσόσπικος πεινεπεπεπεπεπελειπελείπε πεπελείπε κανακακακακακακακακακακακακακακακακακακ	WOLVMUNING ABUNDEC WOUNDED ON WE 24 C AUTO TO T	WW-0OVEV-0440V
55		をいくしていません。 といくしてしているとしている。 といくしてはないないないない。 といくないないないないないないないないないないないないないないないないないないな	0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
000		######################################	
ဝ	 อันดี สุด รูปการและสุดธานการและสุดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและส สิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและสิดธานารและ		
502	XPANDULA LA CONTRADILLO DE CONTRADILLO DE CONTRADILA CONTRADILA CONTRADILLA CO	POLOPPIA DE LA COMPANIO DEL COMPANIO DEL COMPANIO DE LA COMPANIO DEL COMPANIO DE LA COMPANIO DEL COMPANIO DE LA COMPANIO DEL	SACTURE PROPERTY OF THE PROPER
٠,	A PAPA PAPA PAPA PAPA PAPA PAPA PAPA P	A SA	4400-04-0044-4
TRC		200000000000000000000000000000000000000	00000000000000000000000000000000000000
CCAT			
	• 444444444444444444444444444444444444		44444444444444444444444444444444444444
100			
I	. WOLTH-WEDWARDNOORGUSTER	0.000000000000000000000000000000000000	#445000045045004 @C50-501050454-4 H3C 401404 0 201144
NGT.	מהרותות במתחת המתחות התחות המתחות התחות המתחות התחות	ההההההההההההההההההההההההההההההההההההההה	NAUTHUNNUL TUNN
7	•		
C20	•	300000000000000000000000000000000000000	
	•	00000 406404000000000000000000000000000	000000000000000000000000000000000000000
CAI	•		
dr.		4444444444500mmn/\nuquentermen	44444444444444444444444444444444444444
3	CODUNNANANANANANANANANANANANANANANANANANAN	44444444444444444444444444444444444444	######################################
CB		1300 2300 200 200 200 200 200 200 200 200	ちろうろうろうろうろう ひゃうりつけんしん しゃくしつびん しゅうしゅう
121	- CU4400W OCOMHUNO CONTROLO CO	TTTTTTTTVTTAMMETTTTTTTTTTTTTT	アアエアドオアアファ ペットエ
3 (\ \tau \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	201010101010101010101010101010101010101	124641144144444444444444444444444444444
20	449441-140000000000000000000000000000000		000000000000000000000000000000000000000
1.2	. 000-000-000-000000000-000-0000	000000000000000000000000000000000000000	600-006050-005
-	### TANAMANA	TOO 44 4 MOTOR OF THE PROPERTY THE PROPERTY THE PROPERTY TOO 14 4 4 MOTOR OF THE PROPERTY THE PR	And teaded a Commun
		4011101010101040040040101444001 1414404404001401400000101444001	425020444444444444444444444444444444444
22	44444444444444444444444444444444444444	######################################	444444444444444444444444444444444444444
2			~~~~~~~~~~~
2			
po-	•	ववद्वववववववववववववववववववववववववववववववववव	ववववववववववववववववववववववववववववववववववववववव

Figure 2-17. Sample Output - AIE Screening Program

2.4.3.3 Output Description. The sample output, Figure 2-18, is typical of AIE data. It has the same format as the AIE screened output. Sorting of the F-106 AIE data required one minute of elapsed computer time on the IBM 370.

2.4.4 AIE MERGE

- 2.4.4.1 Purpose. This IBM utility program merges the screened and sorted AIE data tapes into a single file.
- 2.4.4.2 Input Data and Procedures. The JCL control cards for this IBM utility program and a sample of card data input for use on the IBM 370 are listed in Paragraph 6.3.4. The input card data is identical to that used in the AIE Sort program.
- 2.4.4.3 Output Description. The F-106 AIE file required just one computer run to merge the seven input tapes into one. These input tapes comprised the five data tapes (see Table 2-5), a tape generated from the listing input data, and a tape generated from the handwritten input data. The output AIE file had some 3000 records, and the merge required one minute on the IBM 370. The output format is identical to the AIE Sort output.

2.4.5 AIE ELIMINATE DUPLICATE RECORDS

- 2.4.5.1 Purpose. This COBOL program eliminates duplicate records from the screened, sorted, and merged AIE file.
- 2.4.5.2 Input Data and Procedures. The JCL control cards for use on the IBM 370 and the program are listed in Paragraph 6.3.5. The input is the merged AIE data tape; operation is identical to that of the AFM 66-1 Eliminate Duplicate Records in Paragraph 2.2.4.2.
- 2.4.5.3 Output Description. The program detected 10 duplicate records in the F-106 AIE file of approximately 3000 records and required about one minute of IBM 370 time. The output format is identical to that of the AIE Sort in Paragraph 2.4.3.3.

2.4.6 AIE COPY ACCEPTABLE AIRCRAFT

2.4.6.1 Purpose. During the initial screening of the AIE data, records for a specified set of aircraft serial numbers were deleted. During formulation of the data bank, only data for a specific fleet of aircraft is necessary. This COBOL program writes these acceptable records on a magnetic tape to form the new AIE file.

Figure 2-18. Sample Output - AIE Sort

2.4.6.2 Input Data and Procedures. The JCL control cards, the program, and a sample of card data input are listed in Paragraph 6.3.6. The input consists of the AIE file and a card deck defining the acceptable serial numbers. The input card deck and operation of the program are identical to that for the AFM 66-1 file in Paragraph 2.2.5.2.

2.4.6.3 Output Description. The record layout is unchanged from the AIE Sort program. Experience with the F-106 AIE file of approximately 3000 records yielded some 2000 records for the new AIE file. The program required one to two minutes of IBM 370 time and the output file required one reel of magnetic tape.

2.5 IRAN FILE GENERATION

The objective of the IRAN File Generation programs is to combine IRAN event data and aircraft acceptance date data to produce the IRAN data file used as input to the Data Bank program. IRAN interval data is calculated from data on consecutive IRAN event records. The output file includes information on current IRAN event, the following IRAN event, and the included IRAN interval. A printed report of this data is generated. (See Figure 2-19.)

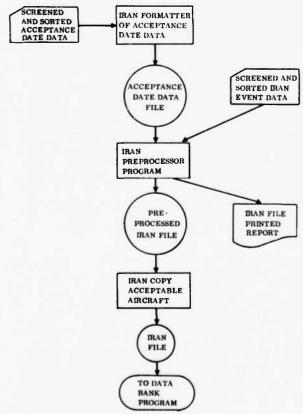


Figure 2-19. Logic Flow of IRAN
File Generation

All of the IRAN File Generation programs were developed for the IBM 370 and have been written to be compatible with SAAMA computers. The programs were written using (ANS) COBOL.

The IRAN File Generation task consists of three COBOL programs:

- a. IRAN Formatter of Acceptance Date Data.
- b. IRAN Preprocessor.
- c. IRAN Copy of Acceptable Aircraft.

The IRAN file is subsequently used for input to the Data Bank programs.

2.5.1 IRAN FORMATTER OF ACCEPTANCE DATE DATA

2.5.1.1 Purpose. The purpose of the IRAN Formatter of Acceptance Date Data program is to convert the serial number

to an eight-digit format and to convert the date to a day number. The converted output, the Acceptance Date Data file, is subsequently used for input to the IRAN Preprocessor program. Paragraph 6.4.1 shows the source program and corresponding job control cards.

2.5.1.2 Input Data and Procedures. The card input consists of a deck containing one acceptance date data card for each aircraft. The cards contain:

Column	Data
1-2	First two digits of serial number
3-6	Last four digits of serial number
17-18	Month of acceptance date*
19-20	Day of acceptance date*
21-22	Two-digit year of acceptance date

The record layout is shown in Figure 2-20. The sample card input is:

57 230	060158
57 231	070158
57 232	070158
57 235	080158

2.5.1.3 Output Description. Output is an intermediate Acceptance Date Data file containing the converted eight-digit serial number and converted day number. The record layout is shown in Figure 2-20. Records are 80 characters long, blocked 1 to a record. For the F-106 fleet, processing of 265 records took less than one minute on the IBM 370 computer.

2.5.2 IRAN PREPROCESSOR

2.5.2.1 Purpose. The purpose of the IRAN Preprocessor is to prepare a Preprocessed IRAN file and an IRAN printed report (Figure 2-19). Paragraph 6.4.2 contains a listing of the source program and corresponding job control cards. The following is a description of the operation of the IRAN Preprocessor program.

An event card is read and the serial number and the start and finish dates are converted. Cumulative flight hours are calculated. An acceptance date record is then read from the Acceptance Date Data file and the serial numbers are compared. If

^{*}Values must be punched right-justified within these fields. The values may have leading zeros or blanks.

RECORDS AND	WORK AREAS DATE REVISED DATE BY USED BY FINDSHAME IN INCOME.	EVENT DATA PREPROCESSOR
RECORD NAME	NAE IRAN - FILE OUT (TAPE BO CHARACTERS BLOCKED 30	FILE NO. BLOCK DATE
FIELO	SERIAL A ACCEPTO TO ARRENA CARA NO. NO. ATION LABOR CO. TENTON LABOR TENTON LABOR TENTON LABOR X X EXTENTAS X STRET X FINISH X TX TX TX STRET X	DAY & INTERO MENTER FLIGHT NO. VAL. VAL. HOURS STARY X DAYS X XTENTYS X
CHARACTER		1 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
RECORD NAME	ANE NOTES ON ABOVE	FILE NO. BLOCK DATE
FIELD	# 1- AIRGART SERIES (A OR B) # 2- VISIT NUMBER # 3- WERKS AT START OF JRAN # 4- WERKS	
CHARACTER	TER 1 2 9 4 5 9 7 6 9 6 1 2 3 4 5 9 7 8 9 6 1 2 3 4 5 6 7 8 9 6 1 2 3 4 5 6 7 8 9 6 1 2 3 4 5 6 7 8 9 6 1 2 3 4 5 6 7 8 9 6 1 2 3 4 5 6 7 8 9 6 1 2 3 4 5 6 7 8 9 6 1 2 3 4 5 6 7 8 9 6 1 2 3 4 5 6 7 8 9 7 8 8 8 9 7 8 9 7 8	1 2 3 4 5 9 7 9 8 6 7 1 2 3 4 5 6 7 8 9 8 1 2 3 4 5 6 7 9 9 6 1 2 3 4 5 9 6 7 9 8 8 9 9
RECORO NAME	ME IKAN- REPURT	FILE NO. BLOCK DATE
FIELD	DLANKS SERIAL SERIAL SOFT DATE DATE	THAN INTERVALS FH TO START OOMPLETE
CHARACTER	1 23 4 3 9 7 8 9 6 1 2 3 4 3 4 7 8 9 6 5 8 8 9 8 9 8 9 8 9 8 9 8 9 9 9 9 9 9 9	1 3 3 4 5 9 7 9 8 6 7 8 9 9 1 2 3 3 4 5 6 7 8 9 9 9 1 2 3 3 4 5 9 9 1 2 3 3 4 5 9 9 9 1 2 3 3 4 5 9 9 9 1 2 3 3 4 5 9 9 9 1 2 3 3 4 5 9 9 9 1 2 3 3 4 5 9 9 9 1 2 3 3 4 5 9 9 9 1 2 3 3 4 5 9 9 9 1 2 3 3 4 5 9 9 9 1 2 3 3 4 5 9 9 9 1 2 3 3 4 5 9 9 9 1 2 3 3 4 5 9 9 9 9 1 2 3 3 4 5 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
RECORD NAME	# 1- AIRCRAFT SERIES (A OR B)	FILE NO. BLOCK DATE
FIELD		
CHARACTER	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000 000 000 000 000 000 000 000 000 00

Figure 2-20. IRAN File Generation Record Layouts (Sheet 1 of 2)

RECORDS AND	RECORDS AND WORK AREAS	DATE	REVISED DATE	<u> </u>	USED BY PROGRAMS			SECTION
RECORD NAME	IRAN ACCEPTANCE DA	OTANCE DATE DATA	(CARDS-	INPUT)		FILE NO.	BLOCK	OATE
FIELD	SASERMI NOT LISED No. UNST.	* 04 × 04 × 04 × 04 × 04 × 04 × 04 × 04	NOTE: JARD COLS (* VALLES MIST BE RIGH WITH LEADING ZE	NTE: SARD COLS (23-80) ARE NOT WALLES MUST BE RIGHT USTIFIED WITH WITH LEADING ZEFUS OR BLANKS.	NOTE: "ARD COLS (23-80) ARE NOT PROCESSED * VALUES MUST BERIGHT USTIFIED WITHIN THESE FIELDS, WITH LEADING ZEFUS OR BLANKS.		NOTE: DATA	OTE: DATA MUST BE SOFTED INTO ASCENDING SERIAL NUMBER ORDER,
CHARACTER	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 7 6 9 2 1 2	2 3 4 5 7 8 9 0	1.234 4 6 6 7 8 9 5 1	2 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 3 4 5 6 7 0 9 0	1 2 3 4 5 6 7 6	00 0 0 0 0 0 0 0 0 0
RECORD NAME	IRAN EVENT	DATH (IN)	D FOR EACH	IFAN EVENTFUR	EALL AINCANFI	FILE NO.	BLOCK	OATE
FIELD	Sty GERIAL MED DAY	TAY YE. NO DO	# 5 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m			#2 Man- Muurs of LAGOR	NOTE:	COLS (74-80) ARE NOT PROCESSED
CHARACTER	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2345670667234367663	2 2 2 3 3	1 2 3 4 5 6 7 0 9	5 1 2 3 4 5 6 7 9 9 6 1 2 3 4 5 6 7 6 9 7	7 1 2 3 4 2 6 7 6 9 0	1 2 3 4 5 6 7 6	00 00 00 00 00 00 00
RECORD NAME	NOTES ON	ABOVE RECORD				FILE NO.	BLOCK	OATE
FIELD	#1 - AIRCRAFT S #2 - VALUES MU #3 3 - 4 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5	#1 - ARCKAFT SERIES DESIGNATION (A DE B) #2 - VALUES MUST BE RIGHT TUSTICED IN THESE #3 - NA THESE #3 - NA WAY TO LEADING SERVES ON BLAND #3 - NA WAY TO LUCKTURE ARCKANT FILL ON THESE #3 - NA WAY TO LUCKTURE ARCKANT FILL ON THE TO SERVES #4 - NA WAY TO LUCKTURE ARCKANT FILL ON THE TO SERVES #5 - NA WAY TO LUCKTURE ARCKANT FILL ON THE TO SERVES #5 - NA WAY TO LUCKTURE ARCKANT FILL ON THE TO SERVES #5 - NA WAY TO LUCKTURE ARCKANT FILL ON THE TO SERVES #5 - NA WAY TO SERVES #5 - NA	OP B) /N THESE LON S. HENDS A.	*	LKANTSPECONE: 61= SPEEDLINE (FERMINTOZO) 10= KULLINDV (L= SPEEDLINE (FERMINTOZO) 20= ESSENTPEINEN (L= SPEEDLINE (FERMINTOZO)) 30= KNATRO ZEPAN (L= SPEEDLINE (FERMINTOZO)) 30= KNATRO ZEPAN (L= SPEEDLINE (FERMINTOZO))	ν ον	TE: DATA C SORTED IN SERIAL NUN DATE ORDE	NOTE: DATA CARDS MUST BE SOSTED NOTO ASSENDING SERIAL NUMBER AND EVENT DATE ORDER,
POSITION	00 00 00 00 00 00 00 00 00 00 00 00 00	3 4 5 6 7 6 9 0 7 2 3 4 6 6 7 8 9	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2 3 9 6 7 9 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	0 1 2 3 4 5 6 7 6 9 8	1 2 3 4 5 6 7 8	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
RECORD NAME	ACCEPTANCE	DATE DAIN - 80 - WINGE CO	C. BLOCKED !			FILE NO.	BLOCK	DATE
FIELD	8-DIGIT \$ 100 NO.	(CON- VERTED DAYS BETTER DAY IS VERTED DAYS BETTER VEC	HY IS FOR DATES H	ZW2: 72.50	H NEGALINE	31, 1977. NUMBER.		
CHARACTER	2 2 3 4 6 6 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	2 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 -	6 C C C C C C C C C C C C C C C C C C C	2 3 4 5 6 7 8 9 0 9 1 2 3 4 5 6 7 9 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	3 4 7 6 7 6 9 9 9	5 6 4	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Figure 2-20. IRAN File Generation Record Layouts (Sheet 2 of 2)

the serial numbers match, the acceptance date is moved to the output record temporary storage area.

All data pertaining to the current IRAN event is moved to the output area. If the acceptance data and IRAN start date are available, the aircraft age is calculated. If IRAN start and finish dates are available, the IRAN duration is calculated. The next IRAN event card is read into the output area fields pertaining to the next IRAN. The serial number and start and finish dates are converted, and cumulative flight hours are calculated. The serial numbers are again compared; if they match, the IRAN interval data in days, weeks, and flight hours is calculated.

The output is written on tape and printed in the report. If the last event card read was for the current serial number, the next event card is read and the second half of this procedure is repeated. If the last event card read was for a different serial number, the entire procedure beginning with retrieval of an acceptance date record is repeated. This cycle is continued until all IRAN event cards have been read and processed.

All fields for which data is missing are filled with the value zero. This will occur for the information on next IRAN and IRAN interval for the last IRAN for each serial number and if particular elements of input data are missing.

2.5.2.2 Input Data and Procedures. The input consists of IRAN acceptance date data previously described and IRAN event data cards. The following is a description of the input for IRAN event data (one card for each IRAN event for each aircraft).

Column	Data
1-2	First two digits of serial number
3-6	Last four digits of serial number
7	Aircraft series designation (A or B)
10-11	Month of IRAN start date*
12-13	Day of IRAN start date*
14-15	Two-digit year of IRAN start date
17-18	Month of IRAN completion date*
19-20	Day of IRAN completion date*
21-22	Two-digit year of IRAN completion date

^{*}Values must be punched right-justified within these fields. The values may have leading zeros or blanks.

Column	Data
27-30	Cumulative aircraft flight hours at start of IRAN (whole hours)*
32	Cumulative aircraft flight hours at start of IRAN (tenths of an hour - Column 31 may contain a decimal point)
35-36	IRAN type code:
	10 = full IRAN
	11 = ACI
	20 = essential IRAN
	30 = limited IRAN
	61 = Speedline 1 (equivalent to 20)
	62 = Speedline 2 (equivalent to 20)
	63 = Speedline 3 (equivalent to 30)
70-73	Manhours of labor in IRAN*

The IRAN event data cards must be sorted into ascending serial number and event date order. The following is a sample card input.

57	230A	091064 111664	834.7	10	
57	230A	100465 110965	1041.1	20	
57	230A	100768 122468	1924.8	10	4245
57	7 231A	092864 120164	920.5	10	
57	231A	101465 111765	1189.1	20	
57	231A	112068 030669	2004.7	10	4507
57	232A	111565 011766	989.6	20	
57	232A	112067 022168	1478.7	10	
57	232A	021670 032970	2036.6	10	4140
57	235A	070665 080665	1002.3	20	
57	235A	072666 091966	1211.0	30	
57	235A	100266 123066	1233.1	20	3676
57	235A	032169 052969	1749.3	10	4463

2.5.2.3 Output Description. The output consists of a magnetic tape file (Preprocessed IRAN file) and a corresponding printed IRAN report. The output tape records are 80-character records formatted as follows.

^{*}Values must be punched right-justified within these fields. The values may have leading zeros or blanks.

Position	<u>Data</u>
1-8	Serial number
9	Aircraft series (A or B)
11-15	Acceptance date day number
17	Visit number
19-20	IRAN type code (see description under IRAN event data input formats)
22-26	Cumulative aircraft flight hours and tenths at start of IRAN
28-30	Aircraft age in weeks at start of IRAN
32-35	IRAN start date day number
37-40	IRAN completion date day number
42-44	Duration of IRAN (days)
46-49	Manhours of labor in IRAN
51-52	Next IRAN type code (see description under IRAN event data input formats)
54~58	Cumulative aircraft flight hours and tenths at start of next IRAN
60-63	Next IRAN start date day number
65~68	IRAN interval (days)
70-72	IRAN interval (weeks)
74-78	IRAN interval (flight hours and tenths)

Tape output records consist of 80 characters, blocked 30 to a tape record. Figure 2-20 shows the record layout; Figure 2-21 is a sample of the tape output.

The printed output is a report containing the same data fields (in the same order) as the tape output, plus the start and completion dates of the IRAN. The printed output report consists of 120-character data records, blocked 25 to a tape record. Figure 2-20 shows the record layout, and Figure 2-22 is a sample of the printed output report tape. For the F-106 fleet, processing of 265 records took approximately one minute on the IBM 370.

2.5.3 IRAN COPY ACCEPTABLE AIRCRAFT

2.5.3.1 Purpose. The purpose of the IRAN Copy Acceptable Aircraft program is to select acceptable aircraft serial numbers for input to the data bank.

1001	:	÷	m [*]
PAGE	•		101
		*	· c
	• 🚅	ž	¥
	• [6]	6 0 0	• 60
		z 2	5 5 6
c	•	ō	5
	1		
9			
000	*****	*******	
000000	400 HTUCHING 20 MONTHOM HOME CATE MONTHOMINE A COUNTHOM HOME CATE MONTHOM WOOD CONTOWNED A MO	######################################	C 040000004800/A C 0400000000138000 C 040000404=\$CNU
0000000	\\ \tau \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\		- 0000 CCC00C00C
0		TR NC & C C C C C C C C C C C C C C C C C	
F 208	######################################	MET + D + D + D + D + D + D + D + D + D +	1+++60+621+4160 +
CCNIRC		### ##################################	COOLERPORTS COME C T T T T T T T T T T T T T T T T T T
0	090300000000000000000000000000000000000		0 4/03/02/03/03/03/03/03/03/03/03/03/03/03/03/03/
11.	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	W4 W4 44 410 4V W W4 W4 D4 D0 D0 X D0 W4 W4 W4 D0 D0 X D0 W5 W5 W5 D0	7 55 % 45
LEN	MANAROS PEARVINATO BONNER MINOS PARS A CONTROL OCCUPANTO CONTROL O	00000000000000000000000000000000000000	0.0000=0000000000 0.010004000000000000000000000
202	024-794-00-00-00-00-00-00-00-00-00-00-00-00-00	うりょう こうしょうりょう こうしょう ファン・コース ロース・コース ロース ロース ロース ロース ロース ロース ロース ロース ロース ロ	######################################
5	+ POH POHO + COTSTAC P + 4 BOOCHH + 6 FAC X MINE COND COND ABOOK ON POOCH + 6 FAC X MINE COND COND COND ABOOK ON POOCH + 6 FAC X MINE COND COND COND COND COND COND COND COND	3-1-1-0-0-0-1-1-1-0-0-0-0-0-0-0-0-0-0-0-	- 100mm00mm035mm05cmn04mm04mm05cmn05cmn05cmn05cmn05cmn05cmn05cmn05c
10 5	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	000 00 00 00 00 00 00 00 00 00 00 00 00	0 000400000000000000000000000000000000
121	マード・アード・アード・アード・アード・アード・アード・アード・アード・アード・ア	TO SECOND TO SECONDANT SENSON ON THE ANGLOS OF THE ANGLES	
33.26		CC DCO COMO MO MO MO CO	
14.3	TOP OT THE PROPERTY OF STANDARD OF STANDAR	ALANANANANANANANANANANANANANANANANANANA	777777777777777777777777777777777777777
1022	00000000000000000000000000000000000000	60000000000000000000000000000000000000	1 111411111111111111111111111111111111

Figure 2-21. Sample Tape Output - IRAN File

											•	•				
		••••			101											
					. BLK						2	•				
3696					3000						000					
£-#\$	450	4440	100	0000 0000	500I	100	44440	1000	900	100	59	768	45.980VH	5000	5000	
w 4 3	96 54 54	25.50	212	282	22 18 25	20	28288	2002	280	\$==	28	300	ವಿನ್ನುವಾಗಿತ್ತೆ: ಪ್ರವಸ್ಥಾಪಕ್ಕ	5 5220	SENS	,
439	===	2150	992	0070	350	292	\$0000 46140	C0.20 2448	000	000	05	100	\$0000000000000000000000000000000000000	20000	2000	
¥ .	450	668 71	400	0000	252	5000	10000	2000	400	400	4 9	900	70000	4000	4000	,
¥0	245	26 26 26 26	15 20 16	3222	500	900	124 22	23	250	17 22 10	27	504	100 05 T	25126	3070	
25	220	\$212	1100	200	7115	112	25113	22.00	225	100	1	00- 00-	21013	2 4545	2553	
AF S	2364 6337 C	2590 6150 6753	4231 5576 0	2015 127 187 187	5041 5041	4195 5579	3469 722 4541 6526	1641 5706 5706	5459	5195 5195	ဂ	4769	64 VE	1.50	2300 4785	
A XXX	225 744 0	~05	~0	7 5 9 C	440	300	24 24 26 26 26 26 26 26 26 26 26 26 26 26 26	255 505 0	250	\$20	70	520	7000 EX		1000	
CAYS X	1363 7	317 2 1095 7 2897 7 893 5	726 5	354 2	4467 4467 4460	653 4 624 4	2 141 2 111 2 113 2 12 2 13 2 13	36C 2 658 4 727 5	119 2 742 5	1334	275 €	653 4 741 5	NANNO :		75.7	•
STRT	1370	287 1423 7399	1054 1873	572 543 1541	986 08 08	764	583 693 303 0	7117	712 15 41	2017	634	1315 2125 5	1445 1445 1415 1415 1415 1415 1415 1415	133	747	
F71 187	0411 3243 0	1000	20366	2110 2331 7493	1760E 1	1053	5215 5937 6504 6504	11361	15571	22175	•	16562 1 23331	00000 00000 00000 00000 00000	1 000	1020	
	220	2250	500	23 <u>5</u> 0	200	120	20000	8000	550 120	coc	29	503	SCOROLL I	41200	3230	,
3,	4245	1205	14.	3670	3,06	4117	46.22	4334	4507	39669 1		4345		5 50	1275	•
CAYS IRAN	367	28.00 28.00	25.1	MIND IT	274	102	2002 2005 2005 2005	575	27.		23	.015	\$ 5 0 0 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 UPICE	1701	
CONTE	1454	-33 321 1526	367	216 927 729 1619	337	385 1140 1636	1111 757 1445	155 1197 197	333 753 1568	375	5.4	1379	1 VIIII	177	13.12.7 1.2.7.7 1.2.7.7.7	
CODE	-112	2447	317	572	343	334	530 530 2303 2303	21 21 11 14 17 11	240	1253	36-	634 1315 2120	1 10 4 F 4 4 5 5 F 5 5 F 5 F 5 F 5 F 5 F 5 F	1465	1777	۲
A. A.	343	85.775 9 4 4 6 9 7 7 7 5	433	301 416 426 555	5775	378 592	44756 44766 44766	324	366 417 536	23.5		222	שניה ביות ש ביית מות ביות ביות ביות ביות ביות ביות ביות בי	55.55	10.10	
£74 \$13	1341	4205 20047 26905 26905	300	m 0 = m	13:74 1733b 22929	11246	11545 15215 20515 20515	15340 11441 10412 22318	15521	105.35	0	1.555	2000	0 E W.7	107	
	552	C 200	0()	2000	026	200	ongo:	2000	NOD	220	2	400	201100	. 3 4.4 .	T-012113	
>	-~~	-0m4	-~ €	-224	⊶.1w	176	- 2m 45		-22		~	10x		3		
ACCPT UATÉ CORE	124	2232	333	-2344 -2344 -2344 -2344	-2313 -2313 -2313	-2313 -2313 -2313	-2313 -2313 -2313 -2313 -2313	1222 1222 1222 1222 1222 132 132 132 132	~~~	-2255	-2132	-213¢ -213¢ -213¢	1111147 1111147	3 7777	1111	•
SERTAL	5 7050250A 5 7050230A 5 70502550A	57000231A 57000231A 57000231A 57000231A	570002324 570002324 570002324	57000235A 57000235A 57000235A	57030236A 57033236A 57000236A	57000237A 57000237A 57000237A	57000241A 57000241A 57000241A 57000241A	570002438 570002438 570002438 570002438	57300244A 57300244A 57676244A	57600245A 57656245A 57000245A	3	57000246A 57000245A 57000245A	57002453A 57002453A 57002453A 57002453A	577724554 577724554 577724554 577774554	6444	
													-4			

Figure 2-22. Sample Tape Output - IRAN Print Report

- 2.5.3.2 Input Data and Procedures. The JCL cards, the program, and a sample of card data input are shown in Paragraph 6.4.3. The input consists of the Preprocessed IRAN file and a card deck defining the acceptable aircraft serial numbers. The input card deck and operation of the program are identical to that for the AFM 66-1 file in Paragraph 2.2.5.2.
- 2.5.3.3 Output Description. The record layout is described in Figure 2-20, and a sample of the tape output is shown in Figure 2-21. The IRAN file of 562 records was copied in one minute of elapsed computer time.

SECTION 3

DATA BANK GENERATION

3.1 GENERAL DESCRIPTION

Generation of the Data Bank requires six input files:

- a. AFM 66-1 Data File
- b. AFM 65-110 Data File
- c. AIE Data File
- d. IRAN Data File
- e. WUC Data File
- f. Data Bank Control Data

Preparation of the first four files was covered in Section 2. This section is concerned with the preparation of the WUC data file, the Data Bank Control Data, the Data Bank program, and the WUC Conversion program. Preparation of the WUC data file was made more complex because of revisions in WUC designation during the period which the Data Bank covers. Additional programs have been developed to first check the WUCs that are processed in the Data Bank, then to convert the WUCs prior to the changeover to the new designation. The logic flow for generating the Data Bank is shown in Figure 3-1.

3.2 WUC FILE GENERATION

The WUC data file comprises the five-digit WUC records and must be sorted into a scending order on the work unit code field. The Data Bank program uses the WUC file as one of the input files. (See Figure 3-1.) If the WUC designation is changed during the period covered by the Data Bank, the Acceptable WUC representing the codes will be printed in the final output. The logic flow of the WUC file generation is shown in Figure 3-2. If there are no changes in WUC designations, the Sort WUC for Conversion and WUC Merge steps should be bypassed, and the WUC for conversion as input data would not be available.

3.2.1 SORT ACCEPTABLE WUC

3.2.1.1 Purpose. This IBM Utility program sorts the Acceptable WUC data into an ordered file.

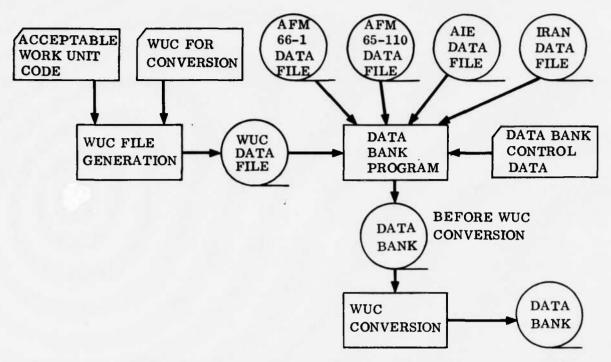


Figure 3-1. Logic Flow - Data Bank Generation

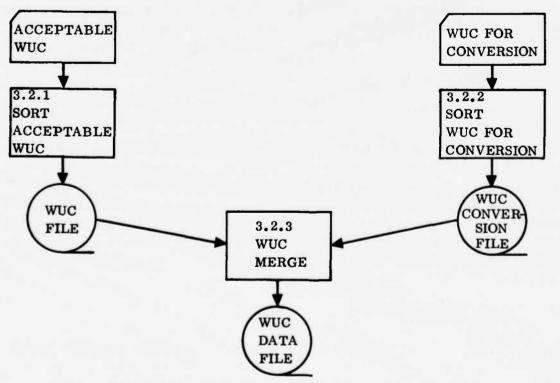


Figure 3-2. Logic Flow - WUC File Generation

3.2.1.2 Input Data and Procedures. The job control language (JCL) for the IBM utility program and a sample of card data input for use on the IBM 370 are shown in Paragraph 6.5.1. The format of the input data is given in Figure 3-3, and the listing of WUCs used in the F-106 Scheduled Maintenance Study is given in Table 3-1. The 20-character data record is the minimum record length accepted by the IBM 370 Sort Utility program at Convair Aerospace. The Sort key is defined as a character field, in ascending order on Columns 1 through 5.

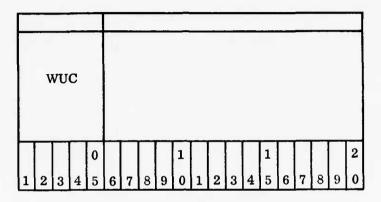


Figure 3-3. Format of WUC Record

3.2.1.3 Output Description. The sample output, Figure 3-4, has 20-character data records, blocked 50 to a tape record. The time required to sort the 2043 WUCs for the F-106 Scheduled Maintenance Study was less than one minute on the IBM 370 computer.

3.2.2 SORT WUC FOR CONVERSION

- 3.2.2.1 Purpose. When the WUC designations have been changed during the period covered by the data bank, it is essential that the list of Acceptable WUCs includes codes that, although obsolete and superseded at the end of the period, had validity at the start of the data bank period. This program sorts these obsolete WUCs in the identical sequence as the list of Acceptable WUC prior to merging of the two files.
- 3.2.2.2 Input Data and Procedures. The JCL for the IBM Utility program and a sample of card data inputs for use with the IBM 370 are shown in Paragraph 6.5.2. The format of the input WUC to be converted is shown in Figure 3-5. This program only uses the Old WUC (i.e., the one to be added to the data bank) but the WUC to supersede it is also included on the input card deck, enabling the same file to be used in a subsequent program. The listings of the "Old WUC," (those to be replaced) and the "New WUC" (those to supersede the old one used in the F-106 Scheduled Maintenance Study) are given in Tables 3-2 and 3-3. The sort data is defined as a character field, in ascending order in Columns 2 through 6.

Codes
×
್ರ
ŭ
4
-:2
Unit
4
Work
Ö
Š
•
7
က
a
~
Ω
able

	ξ,	• • • • • • • • • • • • • • • • • • •	.	m [*]	:		•	:	ż
	PAG	Į.				5. 101		• • • • • • • • • • • • • • • • • • • •	8. TOT
Table 3-1. Work Unit Codes		######################################	0004 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TENTONIA CALLANTA	######################################	ع د د	18	2	CCC TABLE TO CCC
		AAUUUUUU AAUUUUOO AAUUUOOO	14444444 00000001 1400440001			222 120 P P P P P P P P P P P P P P P P P P P			HINDER BERNES OMMITTO TONATO HENNES
	2.27.41 72/224 BLK CNT 998 LENGTH 120 CDNTROL 2025 10	######################################	11111111111111111111111111111111111111	ECT-GSTO	TOTAL				11121111111111111111111111111111111111
		47400460 47400000 47400000	11111111111111111111111111111111111111			4044444 111111774 46474070	0244 Percepton P	111334 1938-1938	1366 1366 1366 1366 1366 1366 1366 1366
		870774400 4487044400 4487044400 4487044444 448744444			101074904 40000044 44444444 44444444				PIRELL TIMEDO TI
	/P TU12	444000000 4440000000 44400000000000000	·				MUNNONUE E		a walandana

13.001 5 11: 12. 13. 15. • : 16. PAGE 302 101 101 101 10, TOT 11, 707 12. TOT 15, TOT 16. TOT 6 13, 14, CH 1177, BLK 22444 23460 23460 23460 23460 23460 23460 23460 41 AT 1 1737, BLK 41 BG1 41 CO! 91 X 91.4 **9** 543, 1231, BLK 8, TOT CULTURE TO THE CONTROL OF THE CONTRO CH 1357, BLK 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13.451 | 13. Table 3-1. Work Unit Codes, Continued CONTROL ZDZn 3000-105 1:005100 233HAF 233HAF 233HAF 233LAAF 235LAAA 235LAAA 22.27.41 72/224 BLK CNT 998 LENGTH 12D 23102 23102 23100 23100 23100 23100 23100 23100 23100 23100 SSEESCHOOL STANDARD S T/P TU12

411604 411604 41640 416601 416601 PAGE 101 101 **T0**T **T0T** 101 101 **T**01 101 17, 19 19, 22, 24. 20. 23, 16 BLK 2 P.K ž 2 95 P.K 2 16. TOT CH 1739, СН 1325. Work Unit Codes, Continued CONTROL 2020 SGCDOOS CCCSSSS 22.27.41 72/224 BLK CNT 998 LENGTH 120 Table 3-1. 11114144 000144444 0001444444 00014444444 000144444444 1/P TU12 444400000 0mf044400 00x044400

17.

33

19

19.

24.

21.

22.

23.

24.

27. 30 58881 -7444 25. 26. 28. 29. 101 101 TOT 27. TOT 30, TOT 101 29. TOT 26, 28. 25, 14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407
14407 CH 10.0 BLK 711CE1 711CE1 71FC1 71FC1 74ADB 74ADB 74ADB 74ADB CH 100, BLK 74ADZ 74AEE 74AEE GCH CSBAC CSBAC CSBAC CSBAC CSBAC TABP TABP TABP ¥ BLX ž TOT 24. CH 1337, BLK Table 3-1. Work Unit Codes, Continued 22 400000 40000 40000 40000 40000 40000 40000 40000 40000 4000 22.27.41 72/224 BLK CNT 998 LENGTH 120 CONTROL 2020 0300000 1000000 1/P TU12 711061 711061 74461 74461 74461

Table 3-1. Work Unit Codes, Continued

	6	€	en en	6	3	88	36
101	101	101	101	101	101	161	101
32.	33.		35,		37,		*6E
Z X	ž	ž	EK .	ž	¥	8 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	ž.
٤			39.	<u> </u>	6	***	.00.
744444 744444 744488 844488 1844488	144444 144444 144444 144444 144444 144444 144444 144444 1	######################################	7444444 74444444 74444444 7444444 7444444	20200000 ELULUUUUU	Manual Control	MAGCENS.	CH 1,
				######################################		44444444444444444444444444444444444444	77

444400 888888 804444		2 00000000 131000000000000000000000000000	745061 745767 7457 7457 7457 7457 7457 7457	# *** * 00000000000000000000000000000000	744 744 744 744 744 744 744 744 744 744	*** ### ### ### ### ### ### ### ### ###	KC A KF A
4444	444444	, 3333333	2222222	######################################		100912 4444	741
			•				
E 4 00	OH	HANDARIA P	ANC DEBUT	0-4.XF-N-00 0-4.XF-N-00	しつりのほうだけだしとがちめませんだ	### ##################################	100
77777777777777777777777777777777777777	77	4444444 44444444	**************************************	**************************************	444 444 444 444 444 444 444 444 444 44	74466 74466 74466 74418 74418 74418 74418	** 74KB

	# # # # # # # # # # # # # # # # # # #		HITADANOO	#####################################	XXXX ALITY	*** *** *** ##########################	3.8
7444 7444 7444 7444 7444 7444 7444 744	######################################	4444444 01000000 01000000	1744 744 744 744 744 744 744 744 744 744	4444444 4444444 4444444 44444444 444444	#444444 ######### ####################	*** 774 774 774 744 744 744 744 744 744	74KB
I KKKU-C	80-80 -4	NO ALWAGOAOU	W-OLEFAN	D m¬D⊼g×4<0	7GIMOLUJ	- 04-0444	B
7 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4						1 44444444 1 466611114	74KA
			*			***	
0 7030AU	**************************************					***	
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	######################################	は、いていることでは、	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	は できた できた でき でき ちゅうし しょうしょう しょうし しょうし しょうし しょうし しょうしょう しょう	00000mtr	744444 744444 7444444 7444444 74444444 7444444	* KA

Table 3-1. Work Unit Codes, Continued

9 6	:			.25	.	;	45.
D A C			_			101	TCI
92	:	*	.	• 23	43,	‡	45,
נחד		ਵ	<u>م</u>	મું મું	ਜ	¥ ਰ	. 91K
0		<u>.</u>	<u>-</u>	t .		CH 177 7456 7456 7468 7468 7467 7467 7467	T
	777	•				000000 000000	Ü
H							
	74KGH 74KGP 74KKI	7446 K K K K K K K K K K K K K K K K K K	7588AC 7588DI 758BDI 750BAD 750BAD 750BAD	7550AE 7550CE 7550CE 7550CE 7550CE 7550CE	7755681 7755681 7755681 7755681 7755681 77557 7757 7757 7757	75 K A C C C C C C C C C C C C C C C C C C	
, Duduo							
	74KGG 74KGG 74KJ1	7777 7777 777 777 777 777 777 777 777	758881 758881 758860 758860 755860 755880	750A0 750A0 750BE 756C0 756BC 756BC	75686 75686 75688 75688 758881 759881 759881	775788 775788 775788 933861 97861 7761 7761	
CUNIKUL							
2	;						
Ξ.	***** ********************************	7777 7746 7746 7746 7746 7746 7746 7746	775887 775880 775887 77587 77587 77587 77587 77587 77587 77587	750AA 750BA 7550BA 7550BA 7556BA 7556BA 7556BA 7556BA	550000 550000 550000 550000 550000 550000 550000 550000 5500000 550000 550000 550000 550000 550000 550000 550000 550000 55000000	775 775 775 775 775 775 775 775 775 775	
496		•		Lichtelebie			
שנא		•					
24	74 K G C C C C C C C C C C C C C C C C C C	A	7558608 7758611 7758611 750611 750611	77577777777777777777777777777777777777	7777777 777777 77777 7777 7777 7777 77		•
4 0			rerecter nanananan	renerence nanananan			•
	O×4	•	74-04-0	40040	1807770487	7227777	
4/	74 KGD 74 KGC 74 KGC 74 KGC 74 KGC 74 KGC 74 KGC 74 KGC	774444 774444 7754076611 755876611 758871	7358 73588 73588 7356 7356 7356 7356 7356 7356 7356 7356	750000 750000 7550000 755660 756661	77777777777777777777777777777777777777	775 775 775 775 775 775 775 775 775 775	97801

8	:	r.	m	;	o.	•	÷	•
PAG		•	•	4. 101	5, 101	6. 101	7. 101	• 101
	11111111111111111111111111111111111111	H 1900, 8L	1000, 1000	LILLER O 10000 O 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1	1000, 66	CH 1000, BLK 12801 12801 12851 12801 13400 1344K	13466 13466 13666 13666 13666 13666 13666 13666 13666	CH 1000, BLK 13621 13621 13641 13641 13641
12.36.45 72/140 BLA CA1 (1/ LENGTH 12C CCATACL 242C GOLGGG/ GAGAGO	LILITA PER	C# 00# #60	ASTICATO AST	MONTH OF THE PROPERTY OF THE P	4	TOTAL	ACCENTAGE ACCENT	11111111111111111111111111111111111111
		TOTALAND TOTALAND TOTALAND TOTALAND TOTALAND	44000004 44000004 74000004			THOUSEN OBIOTES OBIOTES OBIOTES	OMARCO TOWN A AUTOUCE A COMMON TOWN A COMMON	
	00000000000000000000000000000000000000	0.04900.00 0.000000 0.000000000000000000	PC.6 NOMEM MOMEMBER M		THE PERSON OF TH	LIZEBER LIZEBE	0-0-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	TOTAL CONTRACTOR CONTR
	11111111111111111111111111111111111111	19340740	44 bw000 44	1.1.074934 4.00003644 4.00003644		10000000000000000000000000000000000000	0.77340RJ 0.77340RJ 44432003 78443494	30.514
1014	11111111111111111111111111111111111111		PERCENTER PERCEN		11111111111111111111111111111111111111		434454456 4443306 4443306	

Figure 3-4. Sample Output - Sort Acceptable WUC

Table 3-2. WUC Conversion - Work Unit Codes for Deletion

PAGE OUZ	4			•		÷		* =
- *	-			6. 101		7, 101		8 101 101
4, 101	300 Yr			1600, BLN		CH 1600, BLK		EH 1000, BLA
Ch 1600, BLK				5		5		5
43 BLK CNI OZU LENUTH CBG CONTRUL 2030 UGCGGGG GGUGGGG								
10.21.11 72/143 BLK								
12	74465 74465 74465 74465 74465	200000 000000 000000000000000000000000	711717171 71171717171 71071717171 71071717171	X>77777777	IC JUNCE P 6007	24244344 4444444 14444144444444444444444	04043413444 0404341343333	777777 111111 111111 200000 200000 200000

Table 3-2. WUC Conversion - Work Unit Codes for Deletion, Continued

T/P TU12	16-21-11 72/143 BEK CNT G20 LENGTH UBU CUNTRUL 2060 0000000 U000000	0000000 000000	3	1600.	BLK	CH 1600, BLK 8, TOT 8 PAGE ULS	30	PAGE	577
A A A A A A A A A A A A A A A A A A A			5				2		•
7461					3	800, BLK		9, TuT	<i>3</i> .
244 244 244 244									

Table 3-3. WUC Conversion - Work Unit Codes for Conversion (WUC in the first column to be replaced by WUC in the right-hand column)

	-	-	<u>.</u>	-
	T	6, TUT	7, 101	6 tul
.,	*			
:	CH 1660, BLK	СН 1600, БЕК	1600, BLK	1600, BLK
	100	100		
	5	3	5	3
0				
20				
9				
9.				
• • • •				
		00we0574 J-48	 TT TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	000000000000000000000000000000000000000
-00000000 -000000000000000000000000000	11111111111111111111111111111111111111	تَوْتِوْنِ وَوْتِوْنِ	 23 3333333333	134334333 333 144444444 444

Table 3-3. WUC Conversion — Work Unit Codes for Conversion, Continued (WUC in the first column to be replaced by WUC in the right-hand column)

	*	3	‡	.,
: :	± 1			
	;	10, 101	11.	101
	,	31	1	;
	٩ ٩	4	4	43
	•	1000, BLA	• •	et, uth
	tu sect.	5	Cn tout, ath	5
		_	4	ز
į				
	70 hd 04 0.10 m	4	Milandonal in 1000 3500 mark training	
111222012012	Proposition of the Control of the Co		TETET PETE STEELS STREET TETET TETET	
######################################				
				~

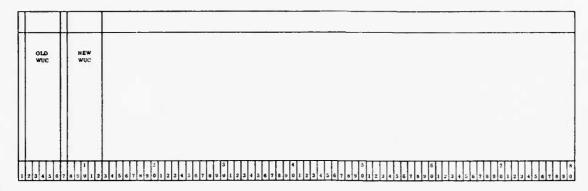


Figure 3-5. Record Layout - Convert WUC

3.2.2.3 Output Description. The sample output, Figure 3-6, has 80-character data records, blocked 20 to a tape record. The time required to sort the 221 F-106 WUCs was less than one minute on the IBM 370 computer.

3.2.3 WUC MERGE

- 3.2.3.1 Purpose. When the WUC designations have been changed during the period covered by the data bank, the list of Acceptable WUCs must include codes that, although obsolete and superseded at the end of the period, had validity at the start of the data bank period. This COBOL program adds these obsolete WUCs to the list of Acceptable WUCs.
- 3.2.3.2 Input Data and Procedures. The program listing and the associated JCL for use with the IBM 370 are shown in Paragraph 6.5.3. The input comprises two files: Acceptable WUC and WUC Conversion. The record layouts are shown in Figures 3-3 and 3-5, respectively. Both input files must be sorted before using with the WUC merge program.
- 3.2.3.3 Output Description. The output comprises the Acceptable WUCs and the Old WUCs, merged to form a file to use as input to the Data Bank program. The output record layout and blocking factor are identical to that of the Acceptable WUC shown in Figure 3-3.

3.3 DATA BANK PROGRAM

3.3.1 PURPOSE. The Data Bank program processes the input data files to produce a data bank for statistical analysis. The program, written in COBOL, provides the logic to control the input files so as to merge all data for a particular aircraft serial number into one of four output data formats. The basic time unit for all records is one week. Only input data records having a WUC listed in the Acceptable WUC file, the 3-digit WUC file, or a scheduled or Special Inspection code is used to construct the data bank output records.

m:		N	m		•
		2, 101	3, 101		•• 101
); BCk***		Сн 1605, 81К	СН 1600, 81К		. BLK
186		160	1600		сн 1676, ВLК
÷.		5	5		5
•					
•					
* * * * * * * * * * * * * * * * * * *					
•					
; :					
7					
. 4444444 . 4444444 . 444444 . 44444 . 44444	C-4777777777777777777777777777777777777	7022002020 020002020 020002020 02000000 000000	#TUMMAMMA MMMMM #TUMMAMM #TUMMMM #T4444444 44444	44444444444 4100 2010 2010 2010 114441 2126 114441 114441 1144	74477777777777777777777777777777777777
•	・トートトトトトト	* ************************************			

Figure 3-6. Sample Output - Sort Converted WUC

3.3.2 INPUT DATA AND PROCEDURES. The program, a sample of card data input, and the associated job control language (JCL) for use with the IBM 370 are shown in Paragraph 6.5.4. The input to the program comprises five input data files and the control data. The five input files are:

- a. AFM 66-1 Data File
- b. AFM 65-110 Data File
- c. IRAN Data File
- d. AIE Data File
- e. WUC Data File

The control data consists of a deck of cards with the following format.

Card Type	Column	Description
a	1-2	Scheduled Inspection, 2-Digit WUC
	6-7	Special Inspection, 2-Digit WUC
	11-18	First Aircraft Serial Number to be Processed
	28-30	Last Week Number to be Processed
	32	Mission of Aircraft
	33-35	Design of Aircraft
	36-40	Number of Aircraft to be Processed
b	1-3	Number of Action-Taken Codes (ATC) to Process
c	1	Action-Taken Code (Number of Cards Set by Card b)
đ	1-3	Number of Maintenance Codes for NORM and NORS Hours
	4-6	Number of Maintenance Codes for NORM Hours only
e	1	Maintenance Codes (NORM Codes First) (Number of Cards Set by Col. 1-3 of Card d)
\mathbf{f}	1-3	Number of 3-Digit WUCs to be Processed
g	1-3	3-Digit WUC (Number Set by Card f)
h	1-3	Number of 2-Digit WUC Groups
	7-10	Number of 5-Digit WUCs to be Processed

Card Type	Column Number	Description
i	1-2	2-Digit WUC Group Identification (ID) (Number of Cards Set by Card h)
	6-10	Position in WUC file of First WUC with Corresponding 2-Digit WUC Group ID
	11-15	Position in WUC file of Last WUC with Corresponding 2-Digit WUC Group ID

A sample set of input data, used for the F-106 Scheduled Maintenance Study, is given in Figure 3-7. All numbers should be right-justified within their designated fields. It is also important that the Maintenance Codes, card type e, be arranged such that codes corresponding to NORM hours be placed ahead of the codes corresponding to NORS hours.

The Data Bank program first opens all input and output files and reads the control data. The four data files are then updated to the first aircraft, and then to the first week for which both AFM 66-1 and AFM 65-110 data is available. All four files are then processed, merging data with a time step of one week. Processing is terminated when the day number in the files reaches the day corresponding to the Last Week, when the next aircraft is processed. This continues until either the end of the 65-110 or 66-1 files or the number of aircraft to be processed is exceeded. On completion, the output tape record is filled with nines, and all files are closed.

The program is suitable for use with the appropriate processed data files for any USAF aircraft with the following program dimension limitations.

a.	Number of Action-Taken Codes	5 Maximum
b.	Number of Maintenance Codes	17 Maximum
c.	Number of 3-Digit WUCs	7 Maximum
d.	Number of 2-Digit WUC Groups	22 Maximum
e.	Number of WUCs	3000 Maximum
f.	Number of Type 3 Output Records for Serial Number - Week	250 Maximum
g.	Number of Type 4 Output Records for Serial Number - Week	250 Maximum

3.3.3 OUTPUT DESCRIPTION. The sample output, Figure 3-8, shows examples of the four types of output records; the format of the data records is given in Figure 3-9. The source of each data item in the four output record types is listed in Table 3-4.

			O COLUMN GENE	RAL PURPOSE FO	ORM	_	
00 1/m.E			200-00	(MCMELL)			MGE OF
38 NO	ARO	EWO WAY	FUNCTION	AMALYST			MATE
B 1	W-2	M-2	W4	#-5	10-8	B -7	94
3 3 5 3 5 7 6					8 8 8 8 8 8 8 8 8 8 8		
3 04	57000230	357	F.106 5				1
3							
• •===================================							I
							1
							1
17.9.							1
			*****	***			1
			*****		****		1
			****			********	
		****	******				1
					*******		1

			*****	*****	*****	****	
			****				1
	4.	سقداه در در در الدوس	****	*******	***	4.1 A-4-4-4-4-4-4	
	.8.5	. d. o . o . d. d. o . d. d. o . d	****	*******	******		+
	1	4 .				فا فلقته الله الله	
		6- 		******	***		
* * * * * * * * * * * * * * * * * * * *			****	*****	****		+
4.4 mad 4.1		4.4 4.4.4.4.4	****				1
						1 6 4-6 6-4-4-6-4	1
				********			+
7						* F * * F * T * T *	1
3A							
.,			a. Lakans 12		A - L	*	بقاهيف الماقاة

90 TITLE					·		NK If
		- FWG-WAP	FUNCTION				TAR
W-1	#-5	913	W4	W4	94	# 7	94
	1171111111	22222222	2111111111	* * * * * * * * * * * *		0 6 6 6 6 6 6	**************************************
36							
236							
2.30							
238					1		
36							
35			I				
24 . 27	20				L		
1	1 . 250						
2 25	1 . 222						
3 20	4.03	J					
4 40	1493		I				
3 49			I				
11 7.4	4 843						
84	9 895				1		
44 21	4 919				1		
5 9.2	0 1021				1		
6	3 11.57						
£7	8 1196		1				
49 119	7.1216						
51	7 1258				1		
3 1.25	9 1308		Linning				
\$5 130		سيسييا	1				
3 131	7.1326		1				Julian.
5 132	7.1384		1				Julia
71 138	5 1430						

Figure 3-7. Sample Input — Data Bank Control

IMI.							PARE OF
10	,AMG	{WO WAP	FUNCTION	ANALYST .			BATE
W-1	m.5	83	W4	84	W4	W-7	114
0000000	lo con	1111111111			* * * * * * * * * *		1117717171
4 143						111.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4	
5 1981	2166			*****	*****		4
3 216		1		*****			
7 219	4		1	*****	1		1
	-		1			·····	
			******	*****	1		· · · · · · · · · · · · · · · · · · ·
	A . I & & a &	+++++++		******		 	
		******		****		******	•
				*****	******	 	
	4 - 1 1 444 44		****	*****	*****		
*****		-			***		
		· • • · · · • • • • • • • • • • • • • •		*****			
	i			*****			
والمعاملة الشميها						 	
		·					
La LL	1	عصين وامروا الماما					4
	1					 	4
							La inace
		.i 				1 14	
4 4 4 A -							
	1						
				the site and the	4	Litter	
			,	1.1			

Figure 3-7. Sample Input — Data Bank Control, Continued

Experience with the files generated for the F-106 Scheduled Maintenance Study, with 150 aircraft for approximately 150 weeks, produced an output file with 609,691 records and required 31 minutes of IBM 370 time. The maximum number of Type 3 and Type 4 records for a particular Serial Number-Week combination was 98 and 111, respectively. The output file required one reel of magnetic tape.

3.4 WUC CONVERSION

The group of programs is necessary to change WUCs within records if their designations have changed within the period covered by the data bank. The logic flow for this group of programs is indicated in Figure 3-10.

3.4.1 SORT WUC FOR CONVERSION

- 3.4.1.1 Purpose. This IBM Utility program sorts the WUCs that are to be changed before the week of the designation change into an ordered file.
- 3.4.1.2 Input Data and Procedures. The JCL cards for the IBM Utility porgram and the data used on the F-106 Scheduled Maintenance Study are listed in Paragraph 6.5.5.

7P TU22 4-7 1 20 727 727 72 74 5 4T 5-1 (FNGTH '')	\$40.000 July 20.000 1847 1847 1950 100	PAGE 301	
		ob Nort	
######################################		си 2009, 8LK 2, TOT 2.	
770007377728748477727033030447074 770007377728748477777002307447074 770007377728748777777777777777777777777777777	05 66773 2727 747 447 37 776 276 47 19 19 19 19 19 19 19 19 19 19 19 19 19	CH 3200, BLK 3, 101 3.	

Figure 3-8. Sample Output - Data Bank

MECOND NAME	DATA RECORD TYPE 1
HOW SHORED	
PED DEWTON	25 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -
CHARACTER	000000000000000000000000000000000000000
FIELD LENGTH	
NECORD INNE	DATH RECORD TYPES
ONCOR MON	71170
DEPARTOR	NAME AND THE PARTY OF THE PARTY
CHARACTER POSTION FIELD LENGTH	
RECORD NAME	DATA RECORD TYPE 3
CHOIS MOH	
FIB.D DETINTION	Note of the control o
CHARACTER POSITION FIELD LENGTH	
PECOND INME	DATA RECORD TYPE 4
HOW SICHED	
PELD DETINITION	S S S S S S S S S S S S S S S S S S S
CHARACTER	100000000000000000000000000000000000000
FIELD LENGTH	
RECORD NAME	
HOW SIGNED	
FIELD DEFINITION	
CHARACTER	
FIELD LENGTH	

Figure 3-9. Record Layouts - Data Bank

Table 3-4. Data Item Source

RECORD TYPE 1

		RECORD TYPE 1
Column	Nomenclature	Source Data
1-5	MDS	Input Control Data
6-13	Serial-Number	Any Input File
14-16	Week-Number	Computed From Day-Number from Any Input File
29-32	Flight-Hours	Sum for the Serial Number-Week of Columns 31-33 on 65-110 type 3-9 records
36-39	Sorties	Sum for the Serial Number-Week of Columns 36-37 on 65-110 type 3-9 records
40-43	Landings	Sum for the Serial Number-Week of Columns 34-35 on 65-110 type 3-9 records
49	Record ID	Set to 1
50	Record Mark	
		RECORD TYPE 2
Column	Nomenclature	Source Data
1-5	MDS	Input Control Data
6-13	Serial-Number	Any Input File
14-16	Week-Number	Computer from Day-Number from Any Input File
26-28	IRAN-Visit-No.	Value for the Serial-Number-Week from (RAN File, Columns 19-20
36-39	IRAN-Start-Day	Value for the Serial-Number-Week from IRAN File, Columns 32-35
40-43	IRAN-End-Day	Value for the Serial-Number-Week from IRAN File, Columns 37-40
49	Record ID	Set to 2
50	Record Mark	
		HECORD TYPE 3
Column	Nomenciature	Source Data
1-5	MDS	Input Control Data
6-13	Serisi-Number	Any Input File
14-16	Week-Number	Computed from Day-Number from Any Input File
17-21	wuc	Data Records for Serial-Number-Week lor the Files:
		a. 65-110 File, Type 2 Records, Columns 34-38
		b. 66-1 File, Columns 46-50
		c. AIE File, Columns 10-14
26-28	Msintenance Action	The Sum of 66-1 File, Columns 56-57 for the Serial-Number-Week-WUC Combination
29-32	Labor Hours	The Sum of 66-1 File, Columns 58-61 for the Serial-Number-Week-WUC Combination
33-35	AiE	The Number of A1E Records for the Serial-Number-Week-WUC Combination
36-39	NORM Hours	The Sum of 65-110 File, Type 2 Records, Columns 31-33 for the Seriai Number-Week-WUC and Msintenance Code, Column 39, Corresponding to NORM Codes
40-43	NORS Hours	The Sum of 65-110 File, Type 2 Records, Columns 31-33 for the Serial-Number-Week-WUC and Maintenance Code, Column 39, Corresponding to NORS Code
44-46	A TC Maintenance Actions	The Sum of 66-1 File Columns 56-57 for the Selected ATC from the Input Data for the Serial-Number-Week-WUC Combination
49	Record ID	Set to 3
50	Record Mark	
		RECORD TYPE 4
Column	Nomenclature	Source Data
1-5	MDS	Input Control Data
6-i3	Serial-Number	Any Input File
14-16	Week-Number	Computed from Dsy-Number from Any Input File
i7-21	WUC	For the Serial-Number-Week Combination, 66-1 File, Columns 46-50
22	WDC	For the Serial-Number-Week-WUC Combination 66-1 File, Column 52
23-25	HMC	For the Serial-Number-Week-WUC-WDC Combination, 66-i File, Columns 53-55
26-28	Maintenance Action	The Sum for the Serisl-Number-Week-WUC-WDC-HMC Combination, 66-i File, Columns 56-57
29-32	Labor	The Sum for the Serial-Number-Week-WUC-WDC-HMC Combination, 66-1 File, Columna 68-61
49	Record ID	Set to 4
50	Record Mark	
		3_93

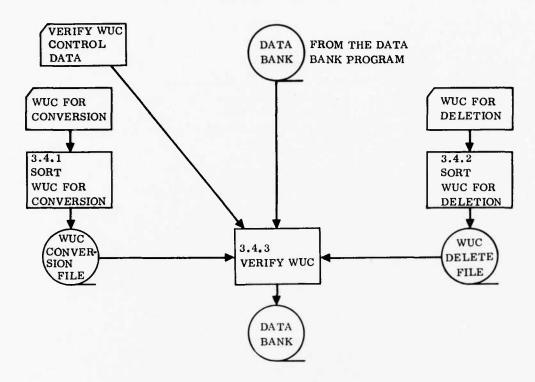


Figure 3-10. Logic Flow — WUC Conversion

The input consists of a tape containing the WUC using the format of Figure 3~5 and should be identical to the one used in Paragraph 3.2.2 and the card data defining the sort field. This is defined as a character field in ascending order. The sort field is:

Field	Column Number	Description
1	2-6	Old WUC

3.4.1.3 Output Description. The sample output, Figure 3-11, has 80 characters to a data record, blocked 20 to a tape record. The sort for the 170 WUCs to be converted on the F-106 Data Bank required less than one minute of IBM 370 computer time.

3.4.2 SORT WUC FOR DELETION

- 3.4.2.1 Purpose. This IBM Utility program sorts the WUCs (which are to be deleted when occurring in records before the week of the change of WUC designation) into an ordered file.
- 3.4.2.2 <u>Input Data and Procedures</u>. The JCL cards for the IBM Utility program and the data cards used on the F-106 Scheduled Maintenance Study are shown in Paragraph 6.5.6.

PAGE 001	÷	•	m [*]	.
		7 101 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	3, 101	. 101
	16009 BLK	40.	• • • • • • • • • • • • • • • • • • •	o, BLK
	5 5	1000 HZ	CH 1600; BLK	CH 1600, BLK
3				
CUNTRUL 2020 COUNTRO 0000000				
2000 00000				
43 BLK LNT OZU LENUTH GEG	=			
NT 020 LE				
-				
N .				
	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			
T/P TU13	ECC-INDESERVATION OF THE PER-	PHIP INCORPORT OF THE PROPERTY		TANAMAN TO THE CONTROL OF THE CONTRO

Figure 3-11. Sample Output - Sort WUC for Conversion

Format of the input tape records is shown in Figure 3-12. The sort control cards are identical to those in Paragraph 3.4.1.1.

3.4.2.3 Output Description. The sample output is shown in Figure 3-13. The sort for the 221 WUCs to be deleted in the F-106 Data Bank required less than one minute of IBM 370 time.

3.4.3 VERIFY WUC

- 3.4.3.1 Purpose. This program, written in COBOL, provides two functions. First, it performs a logical check on the two lists of WUCs previously prepared. If these lists are verified, it then proceeds to change and delete records within the Data Bank according to the two input files.
- 3.4.3.2 Input Data and Procedures. The program, a sample of card data input, and the associated JCL for the IBM 370 are shown in Paragraph 6.5.7.

The input to the program consists of the data bank from the Data Bank program, WUC conversion file, WUC Delete file, and a control card defining the two-digit code to be processed and the date of the WUC designation change. This control card has the following format.

Column	Description
1-3	Week of WUC Designation Change
5-6	First Two Digits of WUC to be Changed

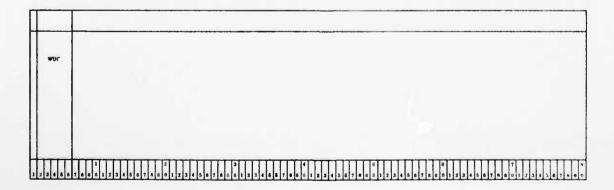


Figure 3-12. Record Layout - WUC for Deletion

		*	·	÷
	PAGE 001 CH 1600, BLK 1, TUT 31.	2, 101	3, 101	4, 101
	130 130	79 °00	СН 1600, Б.ГК	60° 8L
	5	CH 1000, BLK	° 1 5	CH 1660, BLK
	0			
	•			
	:			
	3			
	7			
	Ū : • • • • • • • • • • • • • • • • • • •			
. :				

Figure 3-13. Sample Output - Sort WUC for Deletion

OCCEPTIFICATER DESCRIPTION OF STREET STREET

T/P TU12

A sample input, used in the F-106 Scheduled Maintenance Study, is shown in Figure 3-14. Week 280 corresponds to May 1970, when the Air Force revised the F-106 WUC callouts for System 74.

As shown in Figure 3-10, the program first reads the WUC Delete file, containing the list of WUCs to be deleted from the data bank generated from the Data Bank program. Then the WUC Conversion file is read. (The Conversion file contains a list of WUCs to be replaced and a list of the replacing WUCs.) The week of WUC change is contained in the control card previously mentioned.

The program then checks the logical consistency of the WUCs on these two input files. After consistency is verified, the program reads the data bank generated from the Data Bank program to delete those records with the WUCs matching those in the WUC Delete file and to convert those records with WUCs matching those in the WUC Conversion file.

			80 COLUMN GENE	RAL PURPOSE FO	RM	ſ	
100 TITLE				ENGINEER	Mariana Trans. Landen T. F.		PAGEOf
100 NO	AWO	EWO WAP	FUNCTION	ANALYSI_			DATE
W-I	#-2	#3	W4	W-S	W4	W-7	W4
112. 1 1. 2. 2. 2. 2 . 6 . 6	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	111111111	11111111111111111111111111111111111111	1 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1 1 5 1 1 1 5 6 6 6 6	1 1 1 1 1 1 1 1	112312111
280 TH							
			·				
	ļ.,,,,,,,	ļ	·				4
****		 	· 				
*****				****	*****		4
*****				*****		** *** ***	
*****					****		4
*****					****	****	
***	1		- A		****		
	-	 			* * * * * * * * * * *	****	
****				- 8 A - 8 4 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 -		A . A . A . A . A . A . A . A .	
*****		•			 	 	
						A. 8 vg A. A. A. A. A. A.	* * * * * * * * * *
							4
*****			*****	* * * * * * * * * * * * * * * * * * *	بالهباد والمتاكمة		+
					The same subject to		
***						1-1 -4-4 -4 E-	
****		· · · · · · · · · · · · · · · · · · ·		****	-		4 A-8-4-3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
				11111111	*****	* * * * * * * * * * * * * * * * * * * *	
				******		11111111	
******	444.6 5.1 1 5.1 4.		ling of calculate and the second of	4144444	*****	1	*****
*****	*******			******		A A - 1 4 A - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	• • • • • • • • • • • • • • • • • • • •
4-4-4-4-4-1-4-3					A A A A A A A A A A A A A A A A A A A		
	1.4		of whatering		2.4	t iik	Link in

Figure 3-14. Sample Input - Verify WUC

The program is suitable for use with the Data Bank file for any USAF aircraft (with the following program dimension limitations).

a. WUCs to be changed

300 Maximum

b. WUCs to be deleted

300 Maximum

3.4.3.3 Output Description. The output has the identical format to that of the Data Bank program shown in Figure 3-9. If the two WUC lists are verified, the number of records processed, passed, changed, and dropped are displayed on the console. If the WUC lists are not correct, the errors are listed on an output file. It took eight minutes of IBM 370 time to run the Verify WUC program for the F-106 fleet.

SECTION 4

STATISTICAL ANALYSIS PROGRAMS

4.1 GENERAL DESCRIPTION

A group of programs has been developed to perform various statistical analysis tasks using the data bank as input. (Section 3 contains the details of the data bank generation.) Relationship of the statistical analysis program is shown in Figure 4-1. The tasks solved by the statistical analysis programs are:

- a. Frequency Analysis (Task I).
- b. Manhour and NOR Time Analysis (Task II).
- c. Interval Length Analysis (Task III).
- d. Effect of Time after Inspection (Task IV).
- e. Removal Action Analysis (Task V).
- f. Aircraft Inspection Histories.

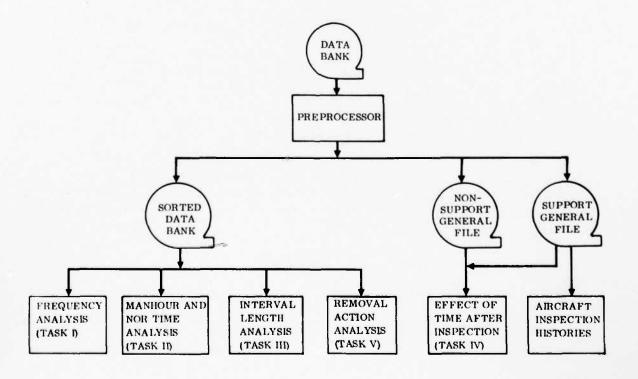


Figure 4-1. Logic Flow - Statistical Analysis Programs

A set of programs, called Preprocessor, was developed to sort and reformat the input data bank (Figure 4-1) into three output files which, in turn, were used to input the six major program modules. The three output files from the Preprocessor are:

- a. Sorted Data Bank.
- b. Non-support General File.
- c. Support General File.

Preprocessor programs are discussed in detail in Paragraph 4.2. Programs for various statistical analysis tasks and Aircraft Inspection Histories are discussed in Paragraphs 4.3 through 4.8.

4.2 PREPROCESSOR PROGRAMS

The Preprocessor programs were developed to reformat and sort the input data bank into three output files (Figure 4-2). All Preprocessor programs were developed for the IBM 370 and have been written to be compatible with SAAMA computers. The Preprocessor Formatter program was written using (ANS) COBOL. Sorting is accomplished by using a standard IBM utility sort program.

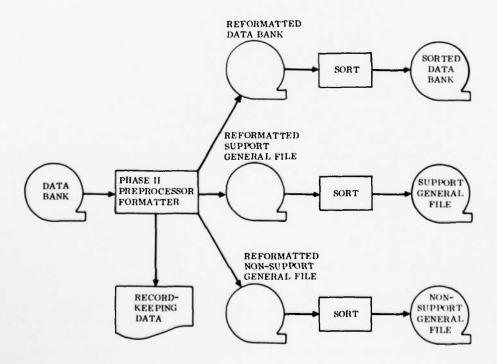


Figure 4-2. Logic Flow — Preprocessor Programs

4.2.1 PREPROCESSOR FORMATTER

- 4.2.1.1 <u>Purpose</u>. The Preprocessor Formatter program was developed to summarize and reformat data records from the input data bank file into three output files, which are then sorted and used as input to subsequent programs (Figure 4-2).
- 4.2.1.2 Input Data and Procedures. The combined listing of the program and JCL cards is shown in Paragraph 6.6.1. The data bank file, created by the Data Bank programs or the work unit code (WUC) convert program, is the input to the Preprocessor Formatter program. The input data records, consisting of four record types, have been organized in a sequence of aircraft serial number, week number, and record type. (See Figure 3-9 for the Data Bank Record layout.)

The Preprocessor Formatter program reformats data records by transferring flight hours from Type 1 records to Type 3 and Type 4 records. Also, flight hours, sorties, and landings from Type 1 records are summed within an aircraft serial number for a given week and transferred to Type 3 and Type 4 records.

All Type 2 records are skipped by the Preprocessor program. For a specific serial number for a given week, there will be no more than one Type 1 record and no more than 250 Type 3 or Type 4 records. Figure 4-3 shows the detailed program logic.

- 4.2.1.3 Output Description. Output from the Preprocessor Formatter program consists of three files containing either Type 3 or Type 4 records or both (Figure 4-4).

 Types contain 70-character data records, blocked 40 to a record. The three files are:
- a. The Reformatted Data Bank file (Type 3 and Type 4 records) from which b and e are separated.
- h. The Support General file (Type 3 records only) with WUC prefixes of 03 and 04.
- c. The Non-Support General file (Type 3 records with WUC prefixes greater than 09 and Type 4 records).

An additional output is the record-keeping listing, which gives Input/Output Totals (Figure 4-5) and Aircraft-Level Subtotals (Figure 4-6).

The single-line input/output totals in Figure 4-5 are described in the following fields.

Field	Column	Description
1	2-8	Data Record Input
2	10-16	Type 3 and 4 Data Records Input
3	18-20	Number of Aircraft

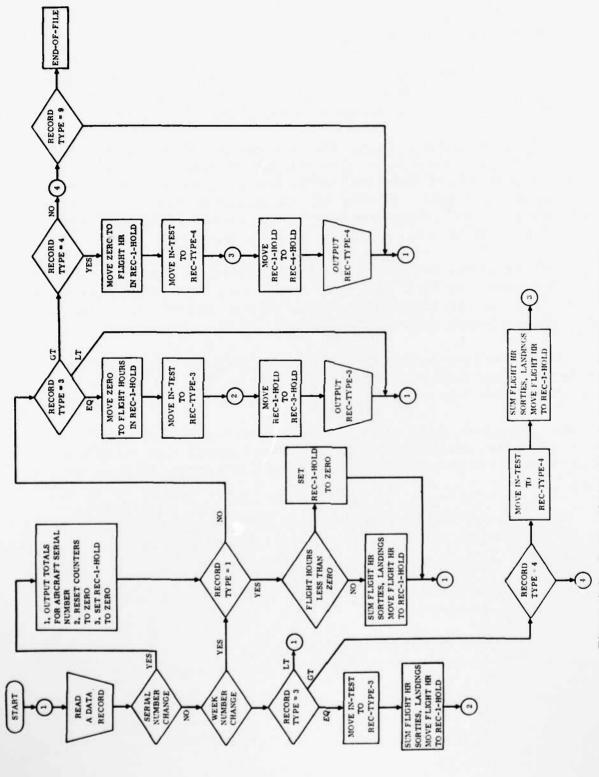


Figure 4-3. Logic Flow - Preprocessor Formatter Program

RECORDS AND	WORK AREAS	DATE RLs L DATE	À 90	USED BY PROGRAMS	SECTION
RECORD NAME	Tyre3			FILE NO.	BLOCK DATE
FIELD	MDS GEP 1. WIEK WUC	UNITS LABOR ATE 1100-10	1105'N 1101'S 1181'E W FH	SPTIES &	NOTE: IF 1ST 2 CH. OF WUC LT 10 = 56, GT OR EQ 10+N5G
VALUE CHAPACTER POSITION	2 3 4 5 6 7 8 8 9 1 2 3 4 5 6 7 8 8 8 7 8 8 8 7 8 8 9 9 9 1 2 3 4 5 6 7 8 8 9 9 9 9 1 2 3 4 5 6 7 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	S 6 7 8 3 0 1 1 2 3 4 5 6 3 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	23667895	(4,57)	00 00 00 00 00 00 00 00 00 00 00 00 00
RECORD NAME	4				BLOCK DATE
FIELD	MDS SEKIN WEN HUC D	D HMC UT: 1/2 II.	70	2 FH \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
VALUE CHARACTER POSITION PICTLINE	12 3 4 8 6 7 6 8 9 1 1 2 3 4 5 6 7 9 8 6 1 2 8 4 5 4 5 5 7 8 9 6 1 2	XXX 5999 6 1.23 4 8 6 7 6 9 6 8 7 7 6	2 3 4 5 6 7 9 9 5	1.2.3.4.5.6.7.0.8.6.1.2.3.4.5.6.7.6.8.2.0.1.2.3.4.5.6.7.6.8.5.7.6.9.3.4.5.6.7.6.8.3.7.6.8.3.7.6.8.3.6.5.6.7.6.8.3.4.5.6.7.6.8.3.4.5.6.7.6.8.3.4.5.6.7.6.8.3.4.5.6.7.6.8.3.4.5.6.7.6.8.3.4.5.4.5.4.5.4.5.4.5.4.5.4.5.4.5.4.5.4	00 - 2 - 3 - 4 - 6 - 6 - 7 - 6 - 9 - 6 - 7 - 6 - 9 - 6 - 7 - 6 - 9 - 6 - 7 - 6 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9
RECORD NAME				FILE NO.	BLOCK DATE
FIELD					
CHARACTER	2 3 4 5 6 7 8 9 0 1 1 2 5 6 5 6 7 8 9 0 7 1 2	5 6 5 6 7 6 9 6 1 2 3 4 5 6 7 6 9 6	2 3 4 5 6 7 8 9 5 5 1 2 3	4 5 6 7 8 9 6 7 1 2 3 4 5 6 7 8 9 6 7 1 2 3 4 5 6 7 8 9 6 7 1 2 3 4 5 6	6 7 6 9 6 7 6 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9
RECORO NAME				FILE NO.	BLOCK OATE
FIELD					
CHARACTER POSITION	2 2 2 4 8 9 0 1 2 2 4 8 9 8 2 7 8 9 8 9 7 9 8 9 8 9 9 9 9 9 9 9 9 9 9	9 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	2 3 4 8 6 7 9 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	6 C C C C C C C C C C C C C C C C C C C	00 00 00 00 00 00 00 00 00 00 00 00 00

Figure 4-4. Preprocessor Tape Record Layouts

Figure 4-5. Sample Output - Record-Keeping (Input/Output Totals)

1/F TU25	12.16.51	72/143	BLK CNT			2070 0000000 0000000		PAGE	
93-07-35575-537-13-09-22-9-4-01-52-52-52-52-52-53-7-5-5-7-7-5-6-5-6-5-6-5-6-5-5-7-7-7-5-6-5-6	0 345 0 345 0 406 0 406 0 407 0	048 1292920450 1292920450 12920 1292	0 21657 2457 24657 24652 22652 22652 22459 22160 22160 22182	179 7000231 1855 57000232 1855 57000232 2001 5700235 2001 5700243 1000 5700243 1000 5700245 1000 570024 1000 570024 100	0 4 4 1 3 1 4 4 5 5 8 7 8 7 9 2 7 9 2 1 1 3 5 5 6 5 7 8 2 3 2 9 9 1 1 3 5 5 7 6 5 5 7 6 5 5 7 6 5 5 7 6 5 5 7 6 7 6	34 34 34 34 34 34 34 34 34 34 34 34 34 3	9		
73352044014672734567766569229444872734567776936	233 233 352 352 302 302 301 351 381 447 399 406 399 406 207 207 207 207 348 361 351 358 430 506 430 50	79C56A 7350 OZZZZ30B7 B8571LC356 6271LC35	12550 65750 64750 74750	1902 3700 5203 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	33773 677376 676737376 5264 5264 5264 5264 5264 5264 5264 526	19 9 2 3 7 7 5 4 2 3 1 3 2 2 8 3 8 7 4 3 3 3 8 9 2 2 6 9 3 3 3 8 9 2 2 6 9 3 3 3 1 3 6 2 5 4 3 1 3 9 3 6 2 5 4 3 1 3 9 3 6 2 5 4 9 1 3 9 4 9 1 9 4 9	CH 1750, 9LK	2, 101	2.
753428886951476012888686869764762576879408687760868794762576257645677642577642577642577642577764257776425777642577764257776425777642577764257776425777642577764257776425777642577764257776425777642577764257776425777642576425	426 428 288 288 288 288 288 288 288 288 288	133 124 666 1223 1225 124 115 1167 1174 1174 1175 1175 1175 1175 1175 117	2523666679 82312666679 82312666679 82312666679 8369327 84527 85317	2006 5800C778 1792 5800C778 1791 5800C781 1791 5800C781 1794 5800C783 1794 5800C783 1794 5800C783 1794 5800C783 1794 5800C783 1794 5800C783 1804 5800C783 1804 5800C901 1158 5800C901	462935186125243205645401 754250555665455555665465	410 4 3471 1885 1495 4113 3098 3098 3098 3099 3745 4120 3597 3540 3776 3476 3476 3476 3609	CH 1750. HLK	3, 101	3.

Figure 4-6. Sample Output - Record Keeping (Aircraft-Level Subtotals)

Field	Column	Description
4	22-28	Support General Data Records Output
5	30-36	Non-Support General Data Records Output
6	38-44	Type 1 Records Input
7	46-52	Type 3 Records Input/Output
8	54-60	Type 4 Records Input/Output

The Aircraft-Level Subtotals fields are:

Field	Column	Description
1	2-7	Total Flight Hours
2	9-13	Total Sorties
3	15-19	Total Landings
4	21-26	Type 1 Records
5	28-34	Type 3 Records
6	36-42	Type 4 Records
7	44-51	Aircraft Serial Number
8	53-58	Support General Records
9	60-65	Non-support General Records

For the 150-aircraft F-106 fleet, the Preprocessor Formatter program requires approximately ten minutes of IBM 370 computer clock time and two minutes of central processor unit (CPU) time. The input volume is 604,677, the reformatted Data Bank output volume is 587,255, the reformatted Support General volume is 83,293, and the reformatted Non-support General volume is 503,962.

4.2.2 REFORMATTED SUPPORT GENERAL WUC SORT

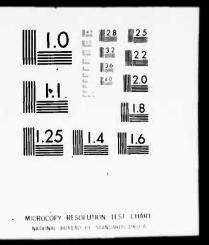
4.2.2.1 <u>Purpose</u>. This IBM utility program sorts the Support General data records into an ordered file for subsequent use on Task IV Statistical Programs and the Aircraft Inspection Histories Plot Program.

4.2.2.2 Input Data and Procedures. The combined listing of the program and JCL cards is shown in Paragraph 6.6.2. The sort fields, in order of hierarchy, are:

Field	Column	Description
1	6-13	Serial Number

GENERAL DYNAMICS SAN DIEGO CALIF CONVAIR AEROSPACE DIV F/G : F-106 SCHEDULED MAINTENANCE STUDY. USER'S MANUAL, (U) SEP 72 G WANG, R S GROTE, J R COOPER F41608-71-D-1383 GDCA-AHD72-006 AD-A045 625 F/G 1/5 UNCLASSIFIED NL 2 of 6 ADA045625

2 of 6 ADA045625



Field	Column	Description
2	14-16	Week
3	17-21	Work Unit Code
4	49	Туре

The input tape record layout is shown in Figure 4-4. Only record Type 3 data is sorted.

4.2.2.3 Output Description. Sorting the Support General file of 83,293 data records took approximately two minutes of elapsed time and 30 seconds of CPU time (IBM 370). A sample of the sorted output is shown in Figure 4-7.

4.2.3 REFORMATTED NON-SUPPORT GENERAL WUC SORT

4.2.3.1 Purpose. This IBM utility program sorts the Non-support General data records into an ordered file for subsequent use on Task IV Statistical Programs.

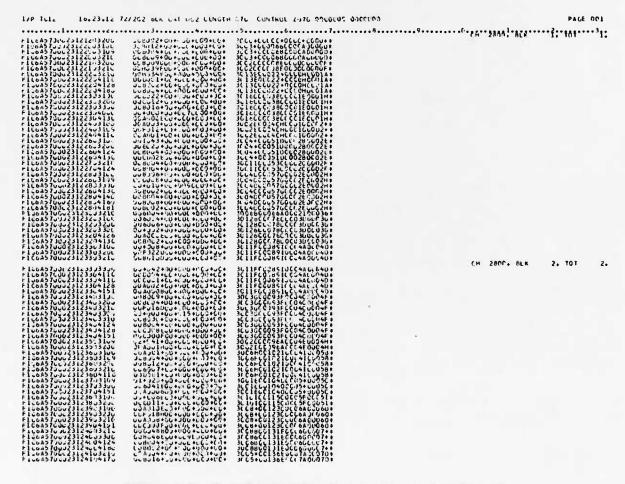


Figure 4-7. Sample Output - Support General WUC Sort

4.2.3.2 Input Data and Procedures. Paragraph 6.6.3 shows the program and JCL cards. The sort fields, in order of hierarchy, are:

Field	Column	Description
1	6-13	Serial Number
2	14-16	Week
3	17-21	Work Unit Code
4	49	Туре

The input tape record layout is shown in Figure 4-4. Record Types 3 and 4 are sorted.

4.2.3.3 Output Description. Sorting the Non-support General file of 503,962 data records took 20 minutes of elapsed time and 30 seconds of CPU time (IBM 370). A sample of the sorted output is shown in Figure 4-8.

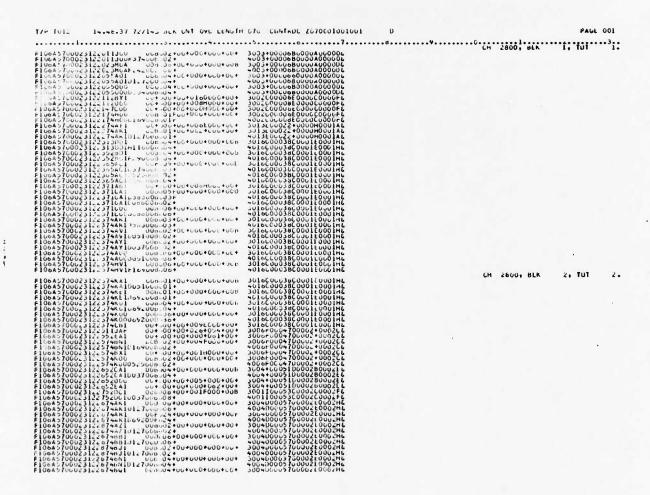


Figure 4-8. Sample Output - Non-support General WUC Sort

4.2.4 REFORMATTED DATA BANK SORT

- 4.2.4.1 <u>Purpose</u>. This IBM utility program sorts Data Bank data records into an ordered file for subsequent use on Tasks I, II, III, and V Statistical Programs.
- 4.2.4.2 <u>Input Data and Procedures</u>. The combined listing of the program and JCL cards is shown in Paragraph 6.6.4. The sort fields, in order of hierarchy, are:

Field	Column	Description
_1	17-21	Work Unit Code
2	23-25	How-Malfunction Code
3	6-13	Serial Number
4	14-16	Week

The input tape record layout is shown in Figure 4-4. Record Types 3 and 4 are sorted.

4.2.4.3 Output Description. Sorting the Data Bank file of 587,255 data records on the IBM 370 took 27 minutes of elapsed time and 3 minutes of CPU time. A sample of the sorted output is shown in Figure 4-9.

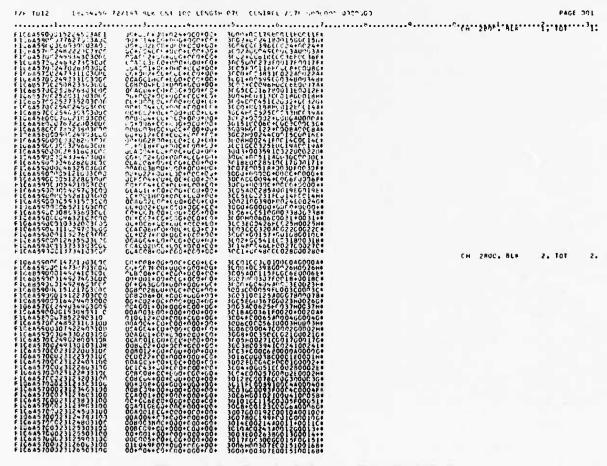


Figure 4-9. Sample Output - Data Bank Sort

4.3 FREQUENCY ANALYSIS - TASK I

The objective of this task is to generate a matrix of data to determine the kinds of malfunctions that occur on a WUC and when they are discovered, and to compare these results with the definitions of scheduled inspections. A system of three COBOL programs has been developed to perform this task (Figure 4-10).

- a. Title Formatter and Five-Digit WUC Analysis (Paragraph 6.7.1).
- b. Frequency Analysis Sort (Paragraph 6.7.2).
- c. Three-Digit WUC Analysis (Paragraph 6.7.3).

Paragraph 6.7 contains the listing of the source programs with the corresponding job control cards, as noted above.

4.3.1 TITLE FORMATTER AND FIVE-DIGIT WUC ANALYSIS

4.3.1.1 Purpose. The purpose of this program is to format the titles from the data for Support General (SG) WUC, perform the analysis at the five-digit WUC level, and to provide two output files to be used for the three-digit WUC analysis.

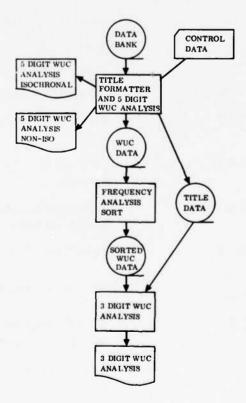


Figure 4-10. Logic Flow - Frequency Analysis

4.3.1.2 Input Data and Procedures. There are two types of input data: tape and card deck. Tape data consists of a data bank sorted in the order of Work Unit Code (WUC), How-Malfunction Code (HMC), aircraft serial number, and week number. The card deck data has the following format.

Card	Column	Description
а	3-5	Number of isochronal aircraft.
b	3-10	Isochronal aircraft serial number in ascending sequence.
	13-15	Starting week number for isochronal inspection.
c	1-5	When-Discovered Code (WDC) titles (WDC used must be in Column 5 and in ascending sequence).
d	1-3	Number of WDC corresponding to unscheduled inspections.
е	1-3	Sequential position of WDC corresponding to an unscheduled inspection.
f	1-3	Number of SG WUC to follow.
g	1-3	Sequential position of WDC corresponding to scheduled inspection.
	6-10	Scheduled inspection in ascending sequence.
h	1-80	Five cards with SG WUC titles (Columns 1-80).
i	1-25	Five cards with SG WUC titles (Columns 81-105).
j	1-3	Sequential position of WDC corresponding to two-digit SG WUC.
	6-10	Two-digit SG WUC.
k	1-3 4-6	WDC in sequence matching SG WUC.
1	1-5	SG WUC requiring time interval to define end of inspection.
	7-8	Week interval for SG WUC.

A sample input data deck is shown in Figure 4-11. The program generates four outputiles:

- a. Title Information.
- b. Five-digit WUC Analysis Report Isochronal.
- c. Five-digit WUC Analysis Report Non-isochronal.
- d. Five-digit WUC Analysis data.

The title information file is derived partially from the input card deck (Cards c, h, and i) and the data bank input file. The card deck defines the WDC and SG WUC titles. The Support General WUC Frequency is obtained from Type 3 records by totaling the number of maintenance action field for the appropriate SG-WUC.

The five-digit WUC Analysis Report-Isochronal file uses the Isochronal title to each page of the report; the frequencies for each WUC and HMC combination are obtained by accumulating the maintenance actions for each of the 21 WDCs for the Isochronal aircraft subset. The total unscheduled maintenance actions are accumulated, as are all totals over the complete WUC. The output is also written in the WUC-Data file for subsequent usage at the three-digit WUC level. A similar report file is available for Non-isochronal aircraft.

4.3.1.3 Output Description. The output consists of two report files that have 130 characters to a data record, blocked 15 to a tape record, and two data files that have 130 characters to a data record, blocked 23 to a tape record. A typical report output is shown in Figure 4-12.

The record layout for the two data files is shown in Figure 4-13, an example of the WUC Data in Figure 4-14, and Title Data in Figure 4-15. The WUC Data file contains:

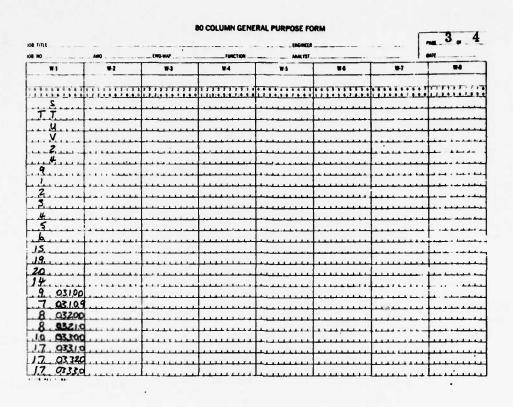
Column	Value	Description
1	Н	Flag indicating data relates to a specific HMC.
	W	Flag indicating data is a total for a WUC.
3-7		Five-digit WUC.
9-11 .	xxx	Three-digit HMC.
	BLANK	Total data for a WUC.
13-17		For Column 1 = H, sum of MA for WUC, HMC, WDC(1). For Column 1 = W, sum of MA for WUC+WDC(1).

This is repeated for 21 When-Discovered Codes.

			80 COLUMN GENER	AL PURPOSE FO	ORM .		
100 HILE				- ENGINEER			MGE 1 or 4
108 HO	AMO _	ENU WAP	FUNCTION	. AMALYST			DAII
W-1	W-2	wa	₩4	W4	W4	W-7	W-8
3 () () () () ()	111111111	13:31:31:11	1,,,,,,,,		3		
12.344.07 0.0 0	146,615		4 - 2 - 2 - 2 - 2 - 2 - 2 - 3 - 3		1.7.2.4.4.2.4.2.4	3 8 8 8 8 8 8 1 1 1 1 1 1	3 1 5 7 4 . 4 5 . 4 5
31	771				*****		+
57.000235			 	 			
				• • • • • • • • • • • • • • • • • • • •			
57000243							1
I PHEE CAME					-4111111		
, <u>57</u> 9925#3					A 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		· · · · · · · · · · · · · · · · · · ·
* Line France to	1	1 1 2 2 4 4 4					111
58000901	+	بمعمده بالماسي	-	بالمتعاملة والماء الأ	********		
5,90,00,00			4		****		
59,000,00			4				4
5,900000	g And I was be but I		4	بممامعة مامنة ه			
59.000000	.331						
5900,001	4-4-22-6-4-6-4					1 4 1 1	4
. 59000012	. 33.1						A
59,00001	4-1-6 7-6-7 7 7 1			للمنا معلوما ما	*******		
59000018		بالاعتمام معورا				L. 11	
59000019	+ LEE - 1						- [
59000021							بالمستقلفية
5900003			4				
59.00005		المتعلقية مناها	4			4.4	
5900005	7.324		J. 141.				
59000.05	324						
5900.005	324	4	4				
59000104		عب صب	1				1
5900010	33/						

			BO COLUMN GENE	RAL PURPOSE FO	RM		
IOR TITLE				(NGMEER		- 2	. 4
108 MG	AWG	EWO WAP	FUNCTION	AMALYST		DATE	
W-1	W2	W3	W4	W4	W4	u, 1-	4
1,2 2,4,4 6,2 6 4 6		0,1,2,2 0 0,1,1,0,0,0	1. 13.4. 0. 1.0. 1.0	1 2 1 1 1 1 1 1 1 1 1			4,0
5.9.000/.08	324						
59.00.01.10							
. 5900.01.19	324		1				
. 59.00.0.1.41	324		I				
1. 59000143	3.24		I				1
5,9,0,001 44	324		I				
5,9000145	. 324			111111111			
59,000,147	324						
59000.151	324						
59000152							: :
. A							
. B.		1112111111	1				
, , c							
D		1 ' ''	1.4.4		8 8 9 9 almandm1 8 4		
E				. 4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4	+		
F.			++++++		EFF. FILL		
1 6		1	11.1.1.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.		44111111		
עע				1 1 1 1 1 2 2 4 4	1 1 1 1		
		1 1 4 1 4 A A A A		, and child and distributed	A 4-4 - 4-1 - 4 - 1 - 1	1 = 1 - 1 - 1 - 1 - 1 - 1	
<u></u>					****	 	
	115 1144			4 - 1 - 1 - 1 - 1			
M. I					4-1-8 + 8 8-8-1 +	Land to the land	
P. P.	1161 101						i
ι. Ω					4.1 14		
. K			1				

Figure 4-11. Sample Input — Title Formatter and Five-Digit WUC Analysis (Sheet 1 of 2)



			O COLUMN GENER	AL PURPOSE FOR	4		
tifte				INCINEER		P40	4 . 4
1 =0	***	I NO MAP	FUNCTION	AMALYST		041	t
W1	W-2	w)		ws _	W4	W-7	W4
		(1111111111	harand.				
11 03400				, 143 4 7 4 4 4			
1.6 . 036.00							
21 . 04141							
3 . 04ZIA				*****			
13 , 04210	III III II						
			000	ρ. α.		00 0	
*******			3 3 3		3 3	44	
144.411.					4	22 *	
		*****	a a .		. o d	J. J. X	
			9.0.9	0.0	0 9 .	A.D. X	
0.09							
33 6				******			4. 14.
32.			*******		• • • • • • • • • • • • • • • • • • • •	• ** • • • •	
00 0		1			******	*****	*****
14. D4.XXX							
7.12		*****					
3300 3							
3310.3 3329.3							
3330 3							
490.5						- 1 - 1 - 1 - 1 - 1	abban di
600 5							
		1					

Figure 4-11. Sample Input — Title Formatter and Five-Digit WUC Analysis (Sheet 2 of 2)

NUC = 11AL1	NON-1	SU.			•										PA	GE I
WHEN DISC. CODE SUPPLIRT GENERAL W.U.C.		, c	D	€ F	9 H G 3 4 G G G G G G G G G G G G G G G G G	100	K 0 0 0 0 0 0	N P 0 4 2 1 0	XXX	R S	33.	04410	٧	Ž	0	17.02C
SUPPURT GENERAL M. U.C. FREGUENCY					3 4 4	22027	2 1 0 5	3 4 6	0424		9 8				32	
FREQ NMC = U2G FREW HMC = U70 FREW HMC = 1070 FREW HMC = 109 FREW HMC = 1177 FREW HMC = 1177 FREW HMC = 1170 FREW HMC = 1170 FREW HMC = 1170 FREW HMC = 370 FREW HMC = 374 FREW HMC = 374 FREW HMC = 374 FREW HMC = 374		1	1	2000			1 13 13 1		1							21 6 2 6 3
FREG HME = 425 FREG HMC = 450 FREG HMC = 561 FREG HMC = 565							1									1
FREG MMC = 750 FREG MMC = 750 FREG MMC = 760 FREG MMC = 846 FREG MMC = 910 FREG MMC = 947	ž		1	2	1		1 I 1 2									1 0
WOL FREQUENCY	4	1	2	52	1		3 33		1	1	1					. 57

Figure 4-12. Sample Output - Five-Digit WUC Analysis

Column	Value	Description
118-123		For Col. 1 = H, sum of unscheduled MA for WUC and HMC.
		For Col. 1 = W, sum of unscheduled MA for WUC.
125	1	Isochronal Data.
	2	Non-isochronal data.
130		End of record.

On a recent IBM 370 run for an F-106 fleet of 150 aircraft and 2201 WUCs, total computer throughput time was 11 minutes. The following number of records were generated.

a.	Five-digit WUC Analysis — Isochronal	20,505 records
b.	Five-digit WUC Analysis - Non-isochronal	51,341 records
c.	Title Data	21 records
d.	WUC Data	30,614 records

The program has the following dimensional limitations.

a.	Isochronal aircraft	36 Maximum
b.	Number of Unscheduled WDC	10 Maximum
c.	Number of SG-WUC	14 Maximum
d.	Number of SG-WUC using time to determine end of inspection	10 Maximum

RECORDS AN	RECORDS AND WORK AREAS	244 G G 250 A 4 G 250 A 4 G 250 B 4	SECTION	* SECTION
NECONO NAME	TITLE FORMATTER AND 5 500 1	· WUC AMPLYET - WUC BATH.	FILE NO BLOCK DATE ILE NO. BLOCK	DATE
FIELD	N I d S	11 - 6 M - 6 M - 9 - 6 M - 9 - 6 M - 9 M - 1 - 6 M - 1 -	75 TT	TOTAL UNICAED MA
CHARACTEN POSITION	8			
HECONO NAME	Title Folkwitter Philos Bu	שופין אינר אינר אינר אינר אינר אינר אינר אינר	FILE NO. SLOCY DATE N.E. NO. BLOCK	0476
New File	Title	£ + £ 4		#-
CHANACTER POSITION	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			# 5 0 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
38YN 00 23N			FILE NO BLOCK DATE ILEND. BLOCK	OATE
F1E., 3				
CHANACTEN				
RECOND NAME			Fig. 10.00 (2.000)	DATE
FIELD				
CHARACTER POSITION		\$100 2118 0075 \$10,020 \$000 00 \$100 00 00 \$100 00 00 \$100 00 00 00 00 00 00 00 00 00 00 00 00		8

Figure 4-13. Record Layout - Title Formatter and Five-Digit WUC Analysis

1/4	TU22	10.42.13 72/194 BCK C	NT 010 CENGTH 130	CUNTRUL 2130 000000	00 0000000	PAGE 001
	AAA 100 AAA	300 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00 + 000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 C C C 20 C 20 C 20 C 20 C 20 C 20 C 2	1300	000+0000+000000 2
	table of tab	CCCC+VCCC+VCCC+VCCC+VCCC+VCCC+VCCC+VCC	00+0000+0000+0000 00+0000+0000+0000+00	UGOG + OLG L+ UG BG + OLG G OGG + OLG L+ UG BG + OLG G OGG + OLG L+ UG BG + OLG G UGG + OLG BF + OLG BF + OLG G UGG + OLG BF + OLG BF + OLG G UGG + OLG BF + OLG BF + OLG G UGG + OLG BF + OLG BF + OLG G UGG + OLG BF + OLG BF + OLG G UGG + OLG BF + OLG BF + OLG G UGG + OLG BF + OLG BF + OLG G UGG + OLG BF + OLG BF + OLG BF + OLG G UGG + OLG BF	### ### #### #########################	0.6 BLK 22. TUI 2. 0.00 + 0.
	indi sullanti salami sa		00+000+000+0000+0000+0000+0000+0000+0000	0000 *0000 *000 0000 0000 0000 0000 00	### 295 ###	0.8 ths. or
H	1201 10	<u>ეტიტების მხობის მეტების გა</u> ელე ელე ეტე ბანის მეტების გა	₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩		+publication +output +	\$ AU000+0000+0000+000

Figure 4-14. Sample Output — WUC Data

			••••	••••	•••••	•••>	••••		•••••	7	••••	••••	B		•••••	• • • •	Ů.	2990,	BCK	····í;	TOT	GE 04
MEN 015G. CODE SUPPURT SENERAC M.U.C.	Nun-1	50	L	0	ŧ	F	000000	H03410	JON- 30	K03300	M03400	4C-103	P04711	304 XXX	R	203 600	1 1 0 3 3 3 2 0 0	00000	٧	2	04141	UN SOH
SUPPORT GENERAL H.O.C. FREGUENCY HOC.	15UCHF.	JNAL					32164	***	3657	4	3 2	32164	i b	0 420 6		в	9 8 3				2 3 2	
SUPPORT GENERAL H. U. E. FREGUENCY							225	1	4 5	0	j.	2		4 4 3			9				ł	

Figure 4-15. Sample Output — Title Data

4.3.2 FREQUENCY ANALYSIS SORT

- 3.4.2.1 <u>Purpose</u>. The purpose of this program is to sort output WUC Data for further processing.
- 4.3.2.2 Input Data and Procedures. The input consists of the WUC Data file described in Paragraph 3.4.1.3.
- 4.3.2.3 Output Description. The output file, 130 characters to a data record, blocked 23 to a tape record, is sorted according to the following keys in ascending order.

Key	Column	Description
1	125	Isochronal
2	3-5	Three-digit WUC
3	1	Data Type
4	9-11	HMC

It required two minutes on the IBM 370 to sort the 30,636 records for the 150-aircraft F-106 fleet.

4.3.3 THREE-DIGIT WUC ANALYSIS

- 4.3.3.1 Purpose. The purpose of this program is to perform the analysis at the three-digit WUC level.
- 4.3.3.2 <u>Input Data and Procedures</u>. Two previously generated files are input data to this program:
- a. Sorted WUC data.
- b. Title data.

Operation of the program is similar to analysis at the five-digit WUC level, Paragraph 4.3.1.2. Differences include a single report output, with the Isochronal preceding the Non-isochronal data.

4.3.3.3 Output Description. The output consists of a single report file, 130 characters to a data record, blocked 15 to a tape record. A typical output is shown in Figure 4-16. On a recent IBM 370 run for an F-106 fleet of 150 aircraft and 2201 WUCs, total computer throughput time was two minutes; 14,660 print records were generated.



Figure 4-16. Sample Output - Three-Digit WUC Analysis

4.4 MANHOUR AND NOR TIME ANALYSIS - TASK II

The objective of this task is to generate cumulative probability distributions for manhour and NOR time analysis. A system of five COBOL programs has been developed to perform this task (Figure 4-17).

- a. Task II Preprocessor.
- b. Sort 2BS.
- c. Cumulative Distribution 2B.
- d. Sort 2CS.
- e. Cumulative Distribution 2C.

Paragraph 6.8 contains the listing of the source programs with corresponding job control cards.

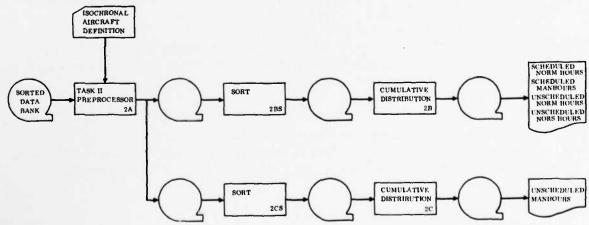


Figure 4-17. Logic Flow - Manhours and NOR Time Analysis (Task II)

4.4.1 PREPROCESSOR - TASK II

- 4.4.1.1 <u>Purpose</u>. The purpose of the Task II Preprocessor is to generate two output files for further processing using the sorted data bank tape, isochronal aircraft definition, a selected list of WUCs, and inspection criteria data as inputs as shown in Figure 4-17.
- 4.4.1.2 <u>Input Data and Processors</u>. There are two types of input data: tape and card deck. Tape data consists of a data bank sorted in the order of WUC, HMC, aircraft serial number, and week number. For the tape record layout, see Figure 4-4. The data card deck has the following formats.

Card No. 1:

Column	Description
1-5	WUC for Hourly Post Flight Inspection
6-10	
11-15	WUC for MA-1 Scheduled Calibration
16-20	
21-25	WUC for Periodic Inspection
26-30	WUC for IRAN Depot Visit
31-35	WUC for Preflight Inspection
36-40	WUC for Basic Postflight Inspection
41-45	WUC for Special Hourly Postflight
46-47	Minimum number of weeks between inspections for the Four WUCs in Columns 1 through 20.
48-49	Minimum number of weeks between inspections for Periodic Inspection and IRAN Depot Visit
Card No. 2:	
3-5	Number of Isochronal Aircraft. (Current program is dimensioned for a maximum of 36 isochronal aircraft, which may be increased by minor program modification.)

The following cards describe the isochronal aircraft fleet, one card per isochronal aircraft; the serial numbers are sorted in ascending order.

Column	Description
3-10	Aircraft Serial Number
13-15	Starting Week Number for Isochronal Inspection

Figure 4-18 is a sample input data deck listing. The Task II Preprocessor program (Figure 4-17) produces two output files (2B and 2C) containing the following information.

File	Data Type	Description
2B	1	NORM Hours - Scheduled Inspection
2B	2	Manhours - Scheduled Inspection
2B	3	NORM Hours — Unscheduled Maintenance Actions
2B	4	NORS Hours — Unscheduled Maintenance Actions
2C	1	Manhours — Unscheduled Maintenance Actions

a. NORM Hours and Manhours — Scheduled Inspection (for File 2B, Data Types 1 and 2). Any NOR time charged during preflights and basic postflights is recorded as unscheduled maintenance. Manhours expended during the look phase of these inspections, however, are charged as support general, so that these inspections are included when calculating the look phase manhour distributions. For a given type of scheduled inspection, each occurrence of that inspection on an aircraft provides an observation of the NORM hours charged during the look and repair phases of the inspection and the manhours charged during the look phase.

To calculate the NORM hours for the inspection, the first Type 3 record encountered with the support general (SG) WUC corresponding to that inspection is combined with records for immediately succeeding weeks with the same code until the end of a continuous block of weekly records is reached. The NORM hours sum for the inspection is obtained by accumulating the NORM hours recorded in this block of records. The manhours for the look phase of this inspection are obtained by also accumulating the manhours in the same way.

By analyzing the plots of flight hours versus week for the F-106 fleet (see Aircraft Inspection Histories, Paragraph 4.8), it was discovered that the minimum number of weeks between inspections was more than two weeks for Hourly Post Flight Inspections and MA-1 Scheduled Calibration Inspections. The minimum number of weeks between inspections for Periodic Inspections and IRAN Depot Visit Inspections was more than four weeks. This information was incorporated to define an inspection as part of the input data. (See Paragraph 4.4.1.2.)

b. Manhours — Unscheduled Maintenance Action (for File 2C, Data Type 1). The manhour distributions are calculated separately for repair actions and unscheduled maintenance actions by accumulating the number of manhours charged against a specific WUC and specific HMC for successive weeks until a week is encountered with a nonzero number of maintenance actions. The number of repair actions or unscheduled actions against the same WUC is accumulated at the same time.

			IO COLUMN GENE	RAL PURPOSE FO	PRM	r			
e une				(MANUEL)			ME Of		
8 NO	_APO		/\mchail	ANALYST			MATE		
\$1	W-2	84	84	W-9	84	W-7	#4		
8 6 6 6 6 6 6 1	1 1 1 1 1 1 1 1 1 1	2	3 3 3 3 3 3 3 3 3 8 4 11234(4)316(7)8(8)	2 4 4 4 6 4 6 4 4 5 1131314151615161516161	112121414141414141414	6 6 6 6 6 6 6 6 6	********		
33.0003310	0372003330	0340003600	0310003200	032100204					
3.4									
57000236	. 331								
57,000,237	331						1		
57,0,0,0,243	3,24						سيسيل		
57000244	331								
57.0025.75	. 331								
5,80,007,76	339						سسسل		
58,000,901	. 331								
59000002	. 3.3.1								
59,000,003	331								
59000005	331								
5.7.000.006	331								
59000010	331								
59000012	331								
59,900,015	. 33.1								
59,990018									
59000019	331								
5,9000026	.33.1								
59000030	33.1								
59,000,054									
59,000,057									
. 59.000.058	3.24	1							
59,00,0,059		1	1						
3900010+		1	1						

108 TUTE				ENGINEER			MAEOF
108 HO	AW0	EWO WAP	FUNCTION	ANA YS1 .			BATE
W-1	W-2	W-3	W-4	W-S	9-5	₩-7	114
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 1 5 1 3 1 3 1 1 1 1 1	11111111111	 4 3 3 3 4 4 2 5 1 7 L121314.51823161816	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 9 5 5 5 5 5 6 6 5 7 7 9 9 5 5 5 5 6 6	0 0 0 0 0 0 0 0	0 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
540001							
59,0001							
54,0001	10 334		******				
4 474 14 14 14 14	19 . 324						
59,0001		 					
3,9,0,0,0,1		+					4
5,90001		*******	*******				1
590001		-	****		***	****	
590001		 	***		******	····	
5.90001		*******	******	****		*****	
T PAINTY TO		1			*****	****	4
****	11111111	1	***	*****	******		
******	*****	********	****	******	*****	******	
				*****		*****	********

							4444
	4	Lucius					
	+						
	Human	····					
		1					
4-4-4-4-4-4-4-4-1-1-1-1-1-1-1-1-1-1-1-1	4						

Figure 4-18. Sample Data — Task II Preprocessor

This data is obtained from Record Type 4. The ratio of these totals provides one observation of manhours per maintenance action for this WUC malfunction. Each occurrence of a maintenance action on an aircraft is in the bank for the specific WUC malfunction. Each occurrence of a maintenance action on an aircraft in the bank for the specific WUC malfunction combination provides another observation.

c. NORM and NORS Hours — Unscheduled Maintenance Actions (for File 2B, Data Types 3 and 4). The distribution for unscheduled NORM hours is the same as in Item b except that only unscheduled maintenance actions are included. Again, NORM hours and maintenance action totals are accumulated from week to week until a nonzero number of maintenance actions field is encountered. The ratio of the two totals then provides one observation of unscheduled NORM hours per maintenance action for the specific WUC. Since the type of malfunction is not recorded in AFM 65-110, through which NORM hours are recorded, it is not possible to calculate this distribution for a specific type of malfunction. The data for this calculation is obtained from Record Type 3.

Calculation of the NORS hours distribution is somewhat different. In this case, the parameter is NORS hours per week for a specific WUC. Each week for which NORS hours are charged against the specific WUC in Record Type 3 provides another observation.

4.4.1.3 Output Description. The output consists of two tape files (2B and 2C) with 20-character data records blocked 90 to a tape record, with the following formats.

Column	Description
1-5	Work Unit Code (WUC)
6-8	How-Malfunction Code (HMC)
10-15	Observation Data
17	Isochronal Indicator
	=1 Isochronal Inspection
	=2 Non-Isochronal Inspection
19	Data Type
	For File 2B:
	=1 Scheduled NORM Hours
	=2 Scheduled Manhours
	=3 Unscheduled NORM Hours
	=4 Unscheduled NORS Hours

Column	Description
	For File 2C:
	=1 Unscheduled Manhours
20	Record Mark

On a recent IBM 370 run for an F-106 fleet of 150 aircraft and 2201 WUCs, total computer throughput time was about 10 minutes. Records totaling 348,511 and 243,801 were generated for Files 2B and 2C, respectively.

- 4.4.2 <u>SORT FOR SCHEDULED NORM HOURS, MANHOURS, UNSCHEDULED NORM</u> HOURS, NORS HOURS (SORT 2BS)
- 4.4.2.1 Purpose. The purpose of this program is to sort output File 2B for further processing.
- 4.4.2.2 <u>Input Data and Procedures.</u> The input consists of tape File 2B as described in Paragraph 4.4.1.3.
- 4.4.2.3 Output Description. An output tape with 20 characters per record and a blocking factor of 90, consisting of scheduled NORM hours, manhours, and unscheduled NORM and NORS hours records, is sorted according to the following keys in ascending order.

Key	Column	Description
1	17	Isochronal Indicator
2	19	Data Type
3	1-5	Work Unit Code

It took about four minutes on the IBM 370 to sort 348,511 records for the 150-aircraft F-106 fleet.

- 4.4.3 <u>CUMULATIVE DISTRIBUTION FOR SCHEDULED NORM HOURS, MANHOURS, UNSCHEDULED NORM HOURS, NORS HOURS</u>
- 4.4.3.1 <u>Purpose</u>. This program generates cumulative distribution plots for scheduled NORM hours and manhours and for unscheduled NORM and NORS hours by WUC and isochronal subset type. The number of observations, maximum and minimum values, and the mean and variance of the observation are printed on the top of each plot.

4.4.3.2 Input Data and Procedures. The format for the input data card is:

Column	Description
1-5	Total Isochronal Aircraft Weeks. For definition, see Figure 2-1 in GDCA-AHD72-003, F-106 Scheduled Maintenance Study, Phase II — Model Formulation and Data Analysis.
6-10	Total Non-Isochronal Aircraft Weeks. For definition, see the preceeding reference.
13-14	Printout Suppression Cutoff for Isochronal Subset.
15-16	Printout Suppression Cutoff for Non-Isochronal Subset.

Figure 4-19 is a sample input data card.

00 TITLE				Chemeet			PMEOF
08 80	ANO	- FWC WAP	FUNCTION				DATE
W-1	#-5	#3	84	W-5	#4	W-7	94
0 0 0 0 0 0	6 6 6 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 2 2 2 2 2 2 3 3	0 1131310131013101310131	100000000000000000000000000000000000000	5 6 6 5 5 5 6 5 6 6	0 0 0 0 0 0 0 0	10 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1.0.2.8.2.1	02205.15		1				
			1				1
		1	1				1
			1				
	···						.
	·						
		+	1				
			1				1
			1				
			1	111111111			
		1					

Figure 4-19. Sample Data — Cumulative Distribution for Scheduled NORM Hours, Manhours, Unscheduled NORM Hours, and NORS Hours

4.4.3.3 Output Description. Cumulative distribution plots by a printer contain the following information.

Work Unit Code

Output Data - one of four types:

Scheduled NORM Hours

Scheduled Manhours

Unscheduled NORM Hours

Unscheduled NORS Hours

Isochronal or Non-Isochronal Subset

Number of Observations

Maximum and Minimum Values

Mean and Variation

The plot tape has 130-character data records, blocked 15 to a tape record. The values for printout suppression cutoff have a significant impact on the output volume. The effect of cutoff on output volume is shown below, based on the F-106 experience:

No. of Aircraft	Isochronal	Non-Isochronal	No. of Plots
15	0	10	1275
15	10	10	686
150	5	15	2101

It took six minutes on the IBM 370 to process 348,511 records and to generate the observation tape for the F-106 fleet. It required three printer hours to make 2101 plots. A sample output from a recent F-106 run is shown in Figure 4-20.

4.4.4 SORT FOR UNSCHEDULED MANHOURS (SORT 2CS)

- 4.4.4.1 <u>Purpose</u>. The purpose of this program is to sort output File 2C for further processing.
- 4.4.4.2 Input Data and Procedures. The input consists of tape File 2C, as described in Paragraph 4.4.1.3.
- 4.4.4.3 Output Description. The output tape file, consisting of unscheduled manhours charged against a specific WUC and specific HMC is sorted according to the following keys in ascending order.

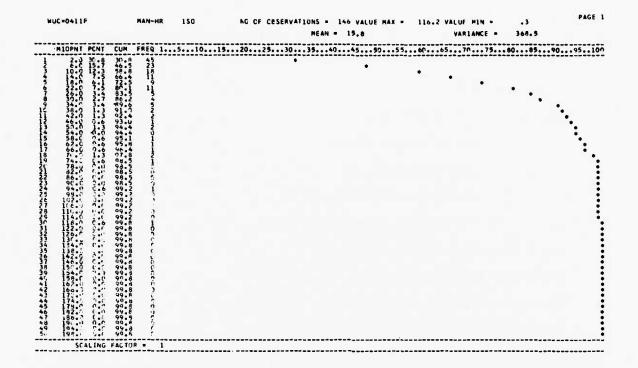


Figure 4-20. Sample Output - Cumulative Distribution of Scheduled Manhours

Key	Column	Description
1	17	Isochronal Indicator
		=1 Isochronal Subset
		=2 Non-Isochronal Subset
2	19	Data Type
		=1 Manhours
3	1-5	Work Unit Code (WUC)
4	6-8	How-Malfunction Code (HMC)

The output tape consists of 20-character data records, blocked 90 to a tape record. It took one minute and 36 seconds to sort 243,801 records for a fleet of 150 F-106 aircraft.

4.4.5 CUMULATIVE DISTRIBUTION FOR UNSCHEDULED MANHOURS

4.4.5.1 <u>Purpose</u>. This program generates cumulative distribution plots for unscheduled manhours by WUC, HMC, and isochronal subset type. The number of observations, maximum and minimum values, and mean and variance of the observations are printed at the top of each plot.

4.4.5.2 Input Data and Procedures. The format for the data card is:

Column	Description
1-2	Printout suppression cutoff for isochronal subset
3-4	Printout suppression cutoff for non-isochronal subset

A sample data card is shown in Figure 4-21.

- 4.4.5.3 Output Description. Cumulative distribution plots by a printer contain:
- a. Work Unit Code (WUC).
- b. Output Data Unscheduled Manhours.
- c. Isochronal or Non-Isochronal Subset.
- d. Number of Observations.
- e. Maximum and Minimum values.
- f. Mean and Variance.

80 COLUMN GENERAL PURPOSE FORM							
JOB TITLE			n	ENGINEER			MGE OF
108 NO	DWA	two wap	FUNCTION	ANALYST			DATE
W-1	W-2	W-3	W4	W-5	W4	W-7	W-8
	1111111111	227712223	1 3 3 3 6 1 3 3 3 4		3 4 5 5 5 7 5 5 7 9		,,,,,,,,,
0515	01234367460	1,7,2,4,5,6,7,6,4,6	1,2,3 4,4 4,7 4,4 4	1,234,5,24,5	123090200	1.2.3.4.6.6.7.0.0.0	1121212121212121212121

			*******				*****
		4.			******		

		******	****		 		

					1111111111		
01000 000 11 000	L	1	Lieuni	ببيبيين	سيسييا		1

Figure 4-21. Sample Data — Cumulative Distribution for Unscheduled Manhours

The plot tape consists of 130-character data records, blocked 15 to a tape record. The values for printout suppression cutoff have a significant impact on the output volume. The effect of cutoff on output volume is shown below, based on the F-106 experience.

No. of Aircraft	Isochronal	Non-Isochronal	No. of Plots
15	0	10	1433
150	0	10	7455
150	5	15	2819

The fleet of 150 F-106 aircraft required about 22 minutes on the IBM 370 to generate the observation tape and four hours of printer time to print the 2819 plots. A sample output from a recent F-106 run is shown in Figure 4-22.

4.5 INTERVAL LENGTH ANALYSIS - TASK III

The objective of this task is to generate cumulative probability distributions for interval length analysis. A system of five COBOL programs has been developed to perform this task. (See Figure 4-23).

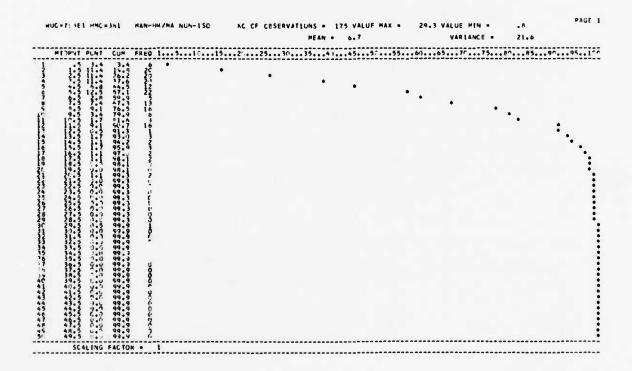


Figure 4-22. Sample Output - Cumulative Distribution for Unscheduled Manhours

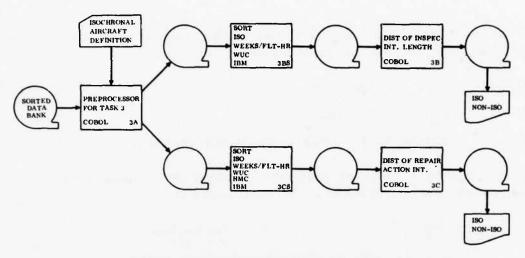


Figure 4-23. Logic Flow - Interval Length Analysis

- a. Task III Preprocessor.
- b. Sort 3BS.
- c. Cumulative Distribution 3B
- d. Sort 3CS.
- e. Cumulative Distribution 3C.

Paragraph 6.9 shows the listing of the source programs with corresponding job control cards.

4.5.1 PREPROCESSOR - TASK III

- 4.5.1.1 <u>Purpose</u>. The purpose of the Task III Preprocessor is to generate two output files for further processing using the sorted data bank tape, isochronal aircraft definition, a selected list of WUCs, and inspection criteria data as inputs (Figure 4-23).
- 4.5.1.2 Input Data and Procedures. There are two types of input data: tape and card deck. Tape data consists of a data bank sorted in the order of WUC, HMC, aircraft serial number, and week number. For the tape record layout, see Figure 4-4. The data card deck has the following format.

Column	Description	
		

Card No. 1:

3-5 Number of Isochronal Aircraft. (Current program is dimensioned for a maximum of 36 isochronal aircraft, which may be increased by minor program modification.)

The following cards describe the isochronal aircraft fleet (one card per isochronal aircraft); serial numbers are sorted in ascending order.

Column	Description
3-10	Aircraft Serial Number
13-15	Starting Week Number for Isochronal Inspection

The next group of cards contains information for a special set of support general (SG) WUCs and relating time span in weeks for inspection criteria.

Card	Column	Description
1	1-5	WUC for Hourly Post Flight Inspection
	6-8	Minimum Number of Weeks Span Between Inspections for the WUC
2	1-5	WUC for MA-1 Scheduled Calibration
	6-8	Minimum Number of Weeks Span Between Inspections for the WUC
3	1-5	WUC for MA-1 Scheduled Calibration
	6-8	Minimum Number of Weeks Span Between Inspections for the WUC
4	1-5	WUC for MA-1 Scheduled Calibration
	6-8	Minimum Number of Weeks Span Between Inspections for the WUC
5	1-5	WUC for Periodic Inspection
	6-8	Minimum Number of Weeks Span Between Inspections for the WUC
6	1-5	WUC for IRAN Depot Visit
	6-8	Minimum Number of Weeks Span Between Inspections for the WUC

A sample input data deck is shown in Figure 4-24. The Task III Preprocessor program (Figure 4-23) produces two output files (3B and 3C) containing the following information.

							Pade OF
TITLE	AWO	EWG-WAP	FUNCTION	- ENGINEER			DATE
W-1	W-2	W.3	94	W4	W4	187	W4
	W-Z	100		17-0	W-9		
*******	*******	111777777	111011111		********		7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
34	7:3:3:4:0:0:3:4:0:0	11,3,11,015,017,1019,0	1181314161917161919	11713[6]91617.6:916	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1131313131313131313	
57000236	. 33/			*******			1
\$300023	. 33/	*******		******			1
57000243	32,7	1					
2,61362.44	331		******	******			1
5.1007.55.5	. 337	1	1.		1		1
50,00776	32.4	1	******				
(xc, c, 90)	. 321	·····					
\$9000002	751	1			1		
54001013	3.7.1	1			1		
Populas	. 33						
5.40,000,00	3.5.1						
5-0.0001.0	3.37						
Samory 3	337	1					
3.50.60.75	. 3.2.						
Sichel 18	. 33						
STREEDS	. 3.3						
SPORECE	3.27						
SPORTS	3.37						
5.000.54	32.						
STUCKLES	3,34,	1,,,,,,,,,					
5:000053	1.333	1,,,,,,,,					
S'DECLS	1.13.						· ·
3-0-01-69	. 336						
51.00155	331						

OB TITLE				ENGINEES			PMSEOF		
oe wo	AW0	EWO WAP	FUNCTION	ANALYST	TRY JANA				
W-1	W-2	#13	W-4	#5	W4	W-7	#4		
0 0 0 0 0 0 0 0 0 0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 3 3 3 3 3 3 2 3 3 [1]2]3[6]6]6]6]7[6]6]6	 3 3 3 3 3 3 3 3 3 3 4 1 2 3 3 4 3 6 7 6 6 6	144444444	1 2 0 6 3 8 8 8 8 6 6	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		
. 54.000102	3.2+								
SACC.C.1.1.C	321								
. S1.C.CC. ! ! .	3.24								
. 59.000.14.1	32,4								
5,9,0,00,143	32,4								
1,9,000144	324			1					
1. QCCC145	3.44								
. Section.	3.4								
. S. 4. C. C. C. 1.5.1	333								
. 57.00x1/57	13.5								
333ce 3.						<u> </u>			
23.3/0. 3.									
03379.3.									
03330 3									
43499 5							سنسبب		
(3°CO. 5.							4		
			fermen	-					
			****			· · · · · · · · · · · · · · · · · · ·	.,		
				********			سسسب		
****	· · · · · · · · · · · · · · · · · · ·						Human		
							1		

Figure 4-24. Sample Data — Task III Preprocessor

<u>File</u>	Date Type	Description
3B	1	Inspection Interval in Weeks
3B	2	Inspection Interval in Flight Hours
3C	1	Repair Action Interval in Weeks
3C	2	Repair Action Interval in Flight Hours

a. Inspection Interval Lengths (for File 3B, Data Types 1 and 2). Observation data will be generated for the interval between successive occurrences of two inspections of the same type. The inspections will be located in the data bank by checking for the appropriate SG WUCs in the Type 3 records. The inspection interval is defined to be the period between the end of one inspection and the start of the next. As for the repair action intervals below, the inspection intervals will be measured in both weeks and flight hours. The data bank will have only one Type 3 record for each inspection short enough to be performed in less than a week. However, long inspections will lead to a number of data bank records for consecutive weeks. Therefore, it will be necessary to determine the week numbers for both the start and the end of each inspection. This analysis will be performed for all inspection types.

By analyzing the plots of flight hours versus week for the F-106 fleet (see Aircraft Inspection Histories, Paragraph 4.8), it was discovered that the minimum number of weeks between inspections was three or more weeks for hourly Post Flight Inspections and MA-1 Scheduled Calibration Inspections. The minimum number of weeks between inspections for Periodic Inspections and IRAN Depot Visit Inspections was five or more weeks. This information was incorporated to define an inspection as part of the input data. (See Paragraph 4.5.1.2.)

- b. Repair Action Intervals (for File 3C, Data Types 1 and 2). This task involves the generation of observation data of the repair action interval for each combination of equipment identification WUC and HMC. Two types of observation data will be generated for each such combination: one for the interval measured in weeks and one for the interval measured in flight hours. Each observation will be the interval between two consecutive flight-hour totals found in the Type 4 records, in which the maintenance actions are recorded. It follows that whenever two or more maintenance actions are encountered for the same aircraft-week-WUC-HMC (i.e., in the same Type 4 record), one or more intervals of zero length will be included in both distributions. All distributions generated for this task will be stored on magnetic tape so that they will be available for use as input analyses to be performed at a later time.
- 4.5.1.3 Output Description. The output consists of two tape files (3B and 3C) and 20-character data records blocked 90 to a tape record, with the following formats.

Column	Description							
1-5	Work Unit Code (WUC)							
6-8	How-Malfunction Code (HMC)							
10-15	Observation Data							
17	Isochronal Indicator							
	=1 Isochronal Inspection							
	=2 Non-Isochronal Inspection							
19	Data Type:							
	For File 3B:							
	=1 Inspection Interval Length in Weeks							
	=2 Inspection Interval Length in Flight Hours							
	For File 3C:							
	=1 Repair Action Interval Length in Weeks							
	=2 Repair Action Interval Length in Flight Hours							
20	Record Mark							

On a recent IBM 370 run for an F-106 fleet of 150 aircraft and 2201 WUCs, total computer throughput time was eight minutes. Records totaling 139,770 and 218,760 were generated for Files 3B and 3C, respectively.

4.5.2 SORT FOR INSPECTION LENGTH INTERVAL (SORT 3B)

- 4.5.2.1 <u>Purpose</u>. The purpose of this program is to sort output File 3B for further processing.
- 4.5.2.2 <u>Input Data and Procedures</u>. The input consists of tape File 3B as described in Paragraph 4.5.1.3.
- 4.5.2.3 Output Description. The output tape file, 20-character data records blocked 90 to a tape record and consisting of inspection interval lengths in weeks and in flight hours, is sorted according to the following keys in ascending order.

Key	Column	Description
1	17	Isochronal Indicator
2	19	Data Type
3	1-5	Work Unit Code

It took about five minutes on the IBM 370 to sort 139,700 records for the 150-aircraft F-106 fleet.

4.5.3 CUMULATIVE DISTRIBUTION FOR INSPECTION LENGTH INTERVAL

4.5.3.1 <u>Purpose</u>. This program generates cumulative distribution plots for inspection length intervals by WUC and isochronal subset type. The number of observations, maximum and minimum values, and the mean and variance of the observation are printed on the top of each plot.

4.5.3.2 Input Data and Procedures. The input data card has the following format.

Column	Description
1-5	Printout Suppression Cutoff for Non-Isochronal Subset
6-10	Printout Suppression Cutoff for Isochronal Subset

Figure 4-25 is a sample data card.

o trile				Encineza			1965 OF
00 MG	ANNO	EWO-WAP	FUNCTION	TEY JAHA			MIL
W-1	W-2	#3	₩4	W-5	W4	₩.7	94
0 0 0 0 0 0 0 0 1	3 3 3 3 3 3 3 3 3 3 3 3	2 2 2 2 2 2 2 2 3 3 3 112:3:4:5:4:7:8:0:0	3 3 2 3 3 2 3 3 2 4	4 4 4 4 4 4 4 4 4 7	7 7 5 5 5 5 5 5 6 6	0 6 6 0 6 6 6 6 6	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
50							
							4

							4
							
							4
							4
							4
****							4
				· · · · · · · · · · · · · · · · · · ·			4
******							4
							4
	·····			· · · · · · · · · · · · · · · · · · ·			
	Lucium	Luciania	Lucia	نبيبينيا			

Figure 4-25. Sample Data — Cumulative Distribution for Inspection Length Interval 4-36

4.5.3.3 Output Description. Cumulative distribution plots by a printer contain the following information.

- a. Work Unit Code (WUC).
- b. Output Data One of the two types:

Inspection Interval Length in Weeks.

Inspection Interval Length in Flight Hours.

- c. Isochronal or Non-Isochronal Subset.
- d. Number of Observations.
- e. Maximum and Minimum Values.
- f. Mean and Variance.

The tape structure of the plot tape consists of 130-character data records, blocked 15 to a tape record. It took five minutes on the IBM 370 to process 139,770 records for the F-106 fleet and six minutes on the printer to make 176 plots. A sample output from a recent F-106 run is shown in Figure 4-26.

WU	C = 631 UY			WEEKS	150	NO OF	UUSERVA	HEAN	295 VALUE	NAA 4	17.0 VALUE VARI	ANCE -	8.4	
	MIDENT	PENT	LUK	FREG 1.	.510	1520	2530.	354	0455	055	.606570	75	8085	9095
į	, • >	3.00	74.9	221								•		
	2:3	3.0	62.3	44									•	
	4.3	1.0	90.4	14										•
	5.5	1.0	91.8	•										•
	9:3	1:0	45.6	3										•
	8.2	1.3	77.2	•										:
	10.5	1.0	78.3	ڊ										
	12.5	0.0	99.2	2										
	13.5	0.0	44.2	Ů										
	8901234567890425	8:0	99.2	ŭ										
	16.5	0.6	99.5	6										
	10.5	0.0	77.7	ŭ										
	20.5	0.0	77.7	ŭ										
	21.	0.0	59.5	8										
	23.5	ÿ:ÿ	94.9	Ò										
	25:3	8:8	77.7	Ü										
	40.5	0.0	95.9	ŏ										
	20.5	0.8	99.9	Ō										
	30.3	0.0	99.9	Ö										
	11:5	6.6	77.7	8										
	33:3	0.0	77.7	0										
	32.5	0.0	77.9	ö										
	-890-100-100-100-100-100-100-100-100-100-1	U.O	77.7	Ú										
	37.5	0.0	77.7	Š										
	39.3	0.0	49.9	ğ										
	40.5	0.0	49.4	ŏ										
	23:3	8:8	\$3:3	ė,										
	43.3	0.0	94.9	ŏ										
	47:3	0.0	99.9	ů										
	47.2	0.0	99.9	Ö										
	49.5	0.0	77.7	ŭ										

Figure 4-26. Sample Output - Cumulative Distribution for Inspection Length Interval

4.5.4 SORT FOR REPAIR ACTION INTERVAL (SORT 3C)

- 4.5.4.1 <u>Purpose</u>. The purpose of this program is to sort output File 3C for further processing.
- 4.5.4.2 Input Data and Procedures. The input consists of tape File 3C, as described in Paragraph 4.5.1.3.
- 4.5.4.3 Output Description. The output tape file, consisting of repair action interval lengths in weeks and in flight hours charged against a specific WUC and specific HMC, is sorted according to the following keys in ascending order.

Key	Column	Description
1	17	Isochronal Indicator
		=1 Isochronal Subset
		=2 Non-Isochronal Subset
2	19	Data Type
		=1 Repair Action Interval in Weeks
		=2 Repair Action Interval in Flight Hours
3	1-5	Work Unit Code (WUC)
4	6-8	How-Malfunction Code (HMC)

The output tape file structure consists of 20-character data records, blocked 90 to a tape record. It took three minutes to sort 218,760 records for a fleet of 150 F-106 aircraft.

4.5.5 CUMULATIVE DISTRIBUTION FOR REPAIR ACTION INTERVAL

- 4.5.5.1 Purpose. This program generates cumulative distribution plots for repair action intervals in weeks and in flight hours by WUC, HMC, and isochronal subset type. The number of observations, maximum and minimum values, and the mean and variance of the observations are printed on top of each plot.
- 4.4.5.2 Input Data and Procedures. The input data card has the following format.

Column	Description
1-5	Printout Suppression Cutoff for Non-Isochronal Subset
6-10	Printout Suppression Cutoff for Isochronal Subset

Figure 4-27 is a sample data card.

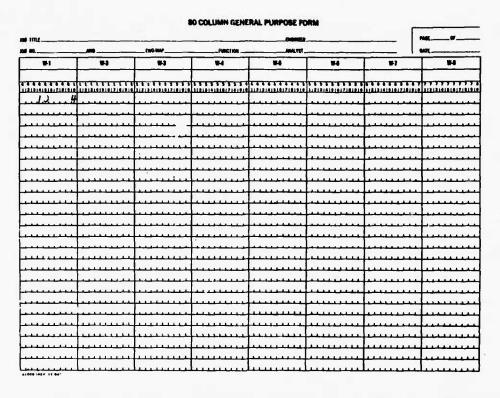


Figure 4-27. Sample Data — Cumulative Distribution for Repair Action Interval

4.5.5.3 Output Description. Cumulative distribution plots by a printer contain the following information.

- a. Work Unit Code (WUC).
- b. Output Data One of the Two Types:

Repair Action Interval in Weeks.

Repair Action Interval in Flight Hours.

- c. Isochronal or Non-Isochronal Subset.
- d. Number of Observations.
- e. Maximum and Minimum Values.
- f. Mean and Variance.

The tape structure of the plot tape consists of 130-character data records, blocked 15 to a tape record. The values for printout suppression cutoff have a significant impact on the output volume. The effect of cutoff on output volume is shown on the following page, based on the F-106 experience.

No. of Aircraft	Isochronal	Non-Isochronal	No. of Plots
150	4	4	3426
150	4	10	2283

For a fleet of 150 F-106 aircraft, it required about 14 minutes on the IBM 370 to process 218,760 records and three printer hours to print 2284 plots. A sample output plot from a recent F-106 run is shown in Figure 4-28.

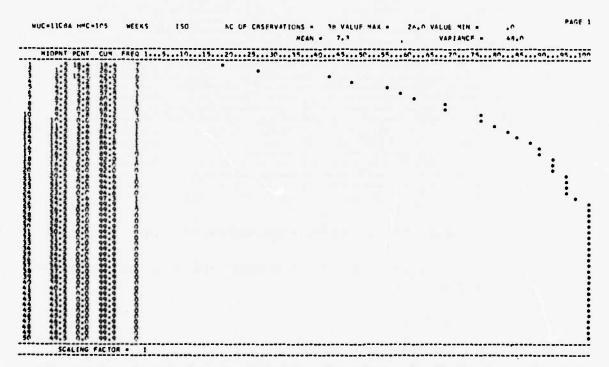


Figure 4-28. Sample Output - Cumulative Distribution for Repair Action Interval

4.6 EFFECT OF TIME AFTER INSPECTION

This set of programs determines the effect of time after an inspection on maintenance requirements and effectiveness parameters. Independent variables will be used with a number of dependent variables for specified sets of equipment identification WUCs. A second analysis, to determine the trend of the various Data Bank variables and the effect of scheduled inspections on these trends, is also included.

The eight programs listed on the following page have been developed to perform these tasks. The logic flow at Aircraft and WUC levels are shown in Figures 4-29 and 4-30, respectively.

- a. Measure Observations at Aircraft Level.
- b. Measure Observations at WUC Level.
- c. Sort Aircraft-Level Observations.
- d. Sort WUC-Level Observations.
- e. Merge WUC-Level Observations.
- f. Count Observations.
- g. Analyze Regression and Correlation.
- h. Analyze Trend.

FORTRAN-COBOL linkage is used for processing Items a, b, and g. COBOL input/output processing is employed to ensure data compatibility, provide more efficient input/output processing, and permit multi-reel file processing of the FORTRAN programs.

4.6.1 MEASURE OBSERVATIONS AT AIRCRAFT LEVEL

- 4.6.1.1 <u>Purpose</u>. The purpose of this program is to generate the observations for a defined set of independent variables for a defined set of dependent variables for isochronal and non-isochronal aircraft subsets.
- 4.6.1.2 Input Data and Procedures. The program was written in both FORTRAN and COBOL. The latter provides the input/output capability and the FORTRAN section performs the requisite measurements. A listing of the complete program, the associated job control language (JCL), and a sample of input data is given in Paragraph 6.10.1. The COBOL input/output is used to handle multi-reel files.

Linkage is provided by a call in the FORTRAN program to a COBOL program entry. The entries in the COBOL program and their uses are.

CREAD1 Reads control cards, Type 1.

CREAD2 Reads control cards, Type 2.

CREAD3 Reads control cards, Type 3.

COBRD1 Reads data records from the Support General WUC file or the Non-support General WUC file, depending on the code transmitted by the FORTRAN program.

The input comprises:

- a. The Support General (SG) WUC file.
- b. The Non-support General (NSG) WUC file.
- c. Cards containing the control data.

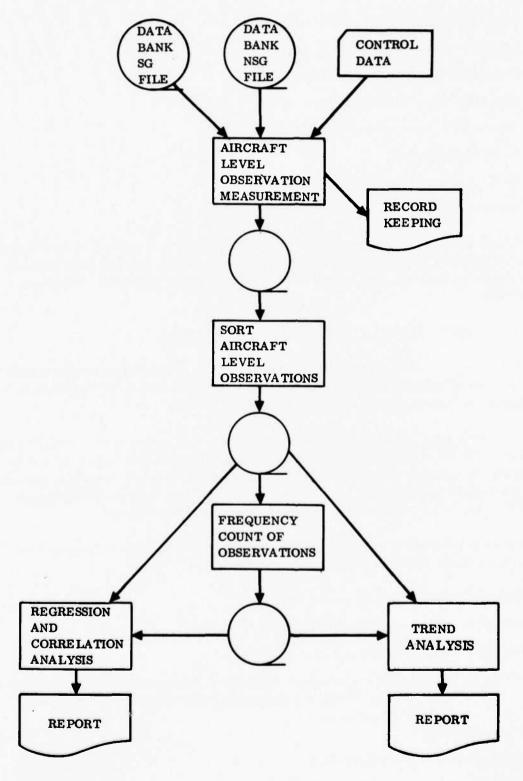


Figure 4-29. Logic Flow — Effect of Time After Inspection — Aircraft Level 4-42

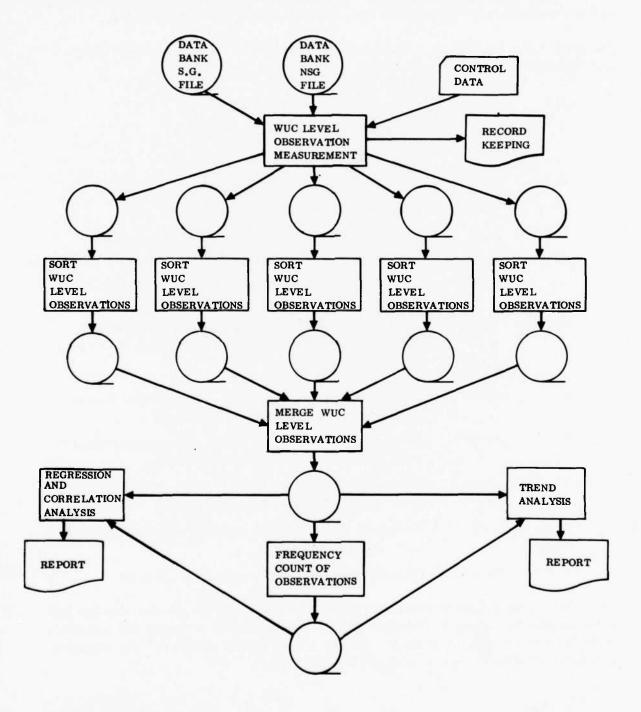


Figure 4-30. Logic Flow - Effect of Time After Inspection - WUC Level

The criterian to measure the end of an inspection is determined by the interval in weeks between occurrences of the inspection code. For Hourly Postflight and MA1 inspections, the minimum interval to define the end of a current inspection is two weeks. For the Periodic inspection, the interval is increased to four weeks. The code corresponding to these inspections is the required input to the program, Cards 5 through 7.

The control data used in the F-106 Scheduled Maintenance Study is shown in Figure 4-31 and has the following format.

Card	Column	Description
1	3-10	First Week of Analysis
	13-20	Last Week of Analysis
2	3-10	First Serial Number for Analysis
	13-20	Last Serial Number for Analysis
3	3-10	Position in SG WUC table that follows the Periodic Inspection for measurement of NORM Hours
	13-20	Position in SG WUC table that follows the Hourly Post- flight Inspection for measurement of NORM Hours
4	3-10	Position in SG WUC table that follows the Periodic Inspection for measurement of AIE/Sortie
	13-20	Dummy (use zero)
5	32-36	First entry into SG WUC table, using greater than two week interval to define End of Inspection
6	32-36	Second entry into SG WUC table, using greater than two week interval to define End of Inspection
7	32-36	Third entry into SG WUC table, using greater than four week interval to define End of Inspection
8-On	3-10	Isochronal Aircraft Serial Number. (These must be in ascending sequence.)
	13-20	Starting Week Number for Isochronal Aircraft

The final card must have an eight-digit number in Columns 3-10, greater than the last serial number from Card 2, Columns 13-20. This is used as an end-of-file indicator. Cards 1-4 and 8 and on are examples of Type 1 input cards. Cards 5-7 are examples of Type 2, as defined by the COBOL-FORTRAN linkage.

			IO COLUMN GENEI	RAL PURPOSE FO	RM		
08 117LE				ENGMELE			me 1 a 2
00 NO		ENO WAP	function	MALYST _			BATE
W-1	M-5	#4	84	W-5	714	9-7	M-9
	derror tra	111111111	*****				, 10 . 17 . 17 . 17
		123 93 9 7 9 9 9	1.7.1.1.1.1.1.1.1.1	24434749	1.1.1.4 1.0 2.4.0.0	144.53.64.6	9.9 1.7.3.419.4.7.4.1
57000Z3		****		, , , , , , , , , , , , , , , , , , , 	*****		
- STRAOFS	3 - 24000109	*****			****		
	3	****			******		
	7		03300		****	****	+++++++
		****	033		****	*****	
	4.4.4.4.4.4.4	*******	034.00		****	*****	• • • • • • • • • • • • • • • • • • • •
5700023	6 331						
5700023			1				
\$7,000,2	3 329						1
5700024							
5700254							
\$800077							
<800090							
590,000		1.1.1.1.1.1.1					
(9,000,00	33.1						
1900000							
59000 QC	26 33.1						
5900001	0 73.1						
5900001	3 31						
59.000Q	5 331						
5,00,001	334						
5,9,00,001							
59000002							
5900003	0 731						

		8	O COLUMN GENE	RAL PURPOSE FO	RM		
00 title				CHCIMELE			ma 2 a 2
00 NO		EWO WAP	FUNCTION	AMLYST			DATE
W-I	W-2	W-3	W4	W-S	M-S	W-7	W-0
			11/11/11/11	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4			. 1 : 2 3 3 3 3 3 3 3 3
59.000054	32*						
59000057	324						
59.000058	32.0						
59 00 00 59	324						
59.0001 ON	33/						
59.000.105	331						
5900008	324						
\$9000110	324						1
C9000119	3.2.4						
59.000.141							
59.00.0143	324						
59000/44	724						1
(9000145	124		Andread Andreas Company				
59000/47	32+	****					. 4 . 4 . 5 . 5 . 5 . 5 . 5 . 5 . 5
5.9.000.15.1	124		*****			4.1 4 1 4 4 4 4	
59,040,152	724						
99000152	274	.4-4-4-4-1-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4	***		********		
	1 . [] 1 . [] 4 [47]	11144444		** ****			1 4 1 4 1 1 6 4
	*******	****	****		*****	Harde Bud A.A.a.a	
	+++++++++++++++++++++++++++++++++++++++	****		A-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4		1-4-6 8 6-6 8-1	B a find a behind
*****	A-2-A A-2-A-A-A A	****					
	********	A-3-3-3-4 A-1 (-4-)			41111444		4 1 4 1 4 1 4 4 4 4
		Flagdages.	FIFT TITLE	8 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 -	and the first second	**	
					المراجعة المحاجة المحاجة	. 1. 2 . 3 . 3 . 4 . 4	++1111
		1.64.68.6	بالمتطابق المتباد المتكاد والدار	******	.4.3.0 4 6.4.4 8		
		+ 1 - 1	4.5.2	1 11 111			1 114 22

Figure 4-31. Sample Input — Measure Observations at Aircraft Level

The independent variables are the following measure of time after the inspection.

- a. Number of Weeks since Inspection. For each observation, this includes the week for which the values of the dependent variables are being determined, but not the week during which the inspection was completed.
- b. Number of Flight Hours Accumulated since Inspection. This includes all flight hours for the week of the observation, but none of the flight hours for the week during which the inspection was completed.
- c. Number of Sorties Flown since Inspection. This includes all sorties flown during the week of the observation, but none of those flown during the week in which the inspection was completed.
- d. Number of Landings Performed since Inspection. This includes all landings performed during the week of the observation, but none of those performed during the week in which the inspection was completed.

The dependent variables are:

- a. NORM Hours per Periodic Inspection. Separate observations are made for NORM hours per periodic inspection for periodic inspections immediately preceded by each of the following types of inspection.
 - 1. Hourly Postflight.
 - 2. MA1 Inspection.

An observation of time after each of these inspection types is performed with each of the four independent variables.

- b. NORM Hours per Hourly Postflight. Separate observations are made for NORM hours per hourly postflight inspection for hourly postflights preceded by each of the following types of inspection.
 - 1. Periodic Inspection.
 - 2. Hourly Postflight.
 - 3. MA1 Inspection.

For each of these inspection types, an observation is taken with each of the four independent variables.

- c. <u>Number of AIEs per Sortie</u>. The number of AIEs per sortie is calculated for each aircraft week after the last preceding periodic inspection. All four of the independent variables are used.
- d. Number of Flight Hours per Week. The variable flight hours per week are defined to be the quotient obtained by dividing the number of hours flown since the latest periodic inspection by the number of weeks since that inspection.

- e. Number of Sorties per Week. The variable sorties per week are defined in the same way as flight hours per week. It will be observed with the independent variable sorties since the inspection.
- f. Number of Landings per Week. The variable landings per week are also defined in the same way. They are observed as a function of landings since the inspection.

4.6.1.3 Output Description. The output consists of a magnetic tape 40-characters to a data record blocked 70 to a tape record. A sample is shown in Figure 4-32, and the format of the data record is as follows.

Column	Value	Description
3-10	Zeroes	Aircraft Level
11-12	01	Non-isochronal Aircraft
	02	Isochronal Aircraft
13-14	01	NORM Hours - Periodic
	02	NORM Hours - Hourly Postflight
	03	AIEs/Sortie
	04	Flight Hour/Week

T/P TU22 11.30.54 72/147 8LK CNT 0	2 LENGTH 120 CCNTRCL 2040 0000000 0000000	PAGE OOL
	49	k · · · · · f · · · tht · · · · 3 ; :
94904796510211 P00043 000610 00010 00110 00010 00110 0	OCCOCGO OCC CONTROL CONTROL	(2711 (747)
9273906010334 00000 00000 00200 00220 000000 00220 00200 000000	OCQUIDOCCIQ432	7444

Figure 4-32. Sample Output - Measure Observations at Output Level

Column	Value	Description
	05	Sortie/Week
	06	Landing/Week
15	1	Origins — Hourly Postflight
	2	Origins — MAs
	3	Origins - Periodic
16	1	Independent Variable - Week
	2	Independent Variable — Flight Hours
	3	Independent Variable — Sortie
	4	Independent Variable — Landing
18-23	xxxxxx	Numerator of Dependent Variable
25-30	xxxxxx	Denominator of Dependent Variable
32-37	XXXXXX	Independent Variable
40	≠	End of Data Record

Output is achieved by a call from the FORTRAN program to the COBOL entry, COBOUT.

The record keeping output file contains a copy of the input control data and an additional line containing:

Column	Description
1-8	Number of Control Data Cards
9-16	Number of Output Observations
17-28	Number of Input Records from SG File
29-36	Number of Input Records from NSG File
37-44	Number of Type 1 !nput Cards
45-52	Number of Type 2 Input Cards
53-61	Number of Type 3 Input Cards (always zero at Aircraft Level)

Figure 4-33 is a sample of the record keeping output. On a recent IBM 370 run for an F-106 fleet of 150 aircraft, a total of 55,288 observations were measured, requiring seven minutes of computer time.

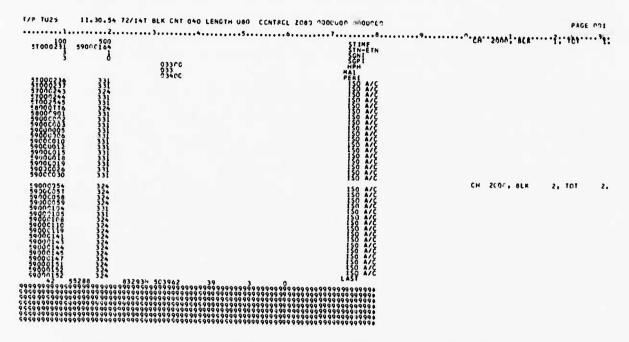


Figure 4-33. Sample Output - Record Keeping at Aircraft Level

4.6.2 MEASURE OBSERVATIONS AT WUC LEVEL

- 4.6.2.1 <u>Purpose</u>. The purpose of this program is to generate the observations for a defined set of independent variables for a defined set of dependent variables for isochronal and non-isochronal aircraft subsets.
- 4.6.2.2 Input Data and Procedures. The program uses both FORTRAN and COBOL; the latter provides the input/output capability for the FORTRAN section, which performs the requisite measurements. A listing of the complete program, the associated JCL, and a sample of input data is given in Paragraph 6.10.2. The COBOL input/output is identical to that used in Paragraph 4.6.1.2. The input comprises:
- a. Support General (SG) WUC File.
- b. Non-Support General (NSG) WUC File.
- c. Card containing the control data.

The criteria to define the end of an inspection is defined in the same manner as at the aircraft level, Paragraph 4.6.1.2.

For each group of NSG WUC groups, different origins for the measurement of intervals between inspections may be defined. Thus, the input data defines first the origin of the inspection, followed by the groups of NSG-WUC groups to be observed. Each NSG-WUC group can be subdivided into a three-digit code and a two-digit code. The

three-digit code will include observations for all NSG-WUCs with the corresponding first three digits. The two-digit code group will include observations for all NSG-WUCs except those for the preceding three-digit codes. The three-digit code for a particular two-digit code subset must precede the two-digit code in the input control data.

The NSG-WUC set using the Hourly-Postflight, MA1, and Period inspections as origin for the F-106 Scheduled Maintenance Study is:

Set	Descr	ription
2	74A	All of 74A
3	74B	All of 74B
4	74C	All of 74C
5	74D	All of 74D
6	74F	All of 74F
7	74H	All of 74H
8	74K	All of 74K
9	74L	All of 74L
10	74P	All of 74P
11	74Q	All of 74Q
12	74000	Only 74000

The NSG-WUC sets using the Hourly Postflight and Periodic inspection as origins are:

Set	Desc	cription
1	11J	All of 11J
2	11K	All of 11K
3	11	All of 11 except for 11J, 11K
4	12B	All of 12B
5	12	All of 12 except for 12B
6	13C	All of 13C
7	13 J	All of 13J
8	13	All of 13 except for 13C, 13J
9	14	All of 14
10	23K	All of 23K

Set	Descri	ption
11	23M	All of 23M
12	23N	All of 23N
13	23Q	All of 23Q
14	23S	All of 23S
15	23	All of 23 except 23K, 23M, 23N, 23Q, 23S
16	41F	All of 41F
17	41	All of 41 except 41F
18	42E	All of 42E
19	42F	All of 42F
20	42G	All of 42G
21	42	All of 42 except for 42E, 42F, 42G
22	44	All of 44
23	45E	All of 45E
24	45J	All of 45J
25	45	All of 45 except for 45E, 45J
26	46A	All of 46A
27	46C	All of 46C
28	46G	All of 46G
29	46H	All of 46H
30	46J	All of 46J
31	46	All of 46 except 46A, 46C, 46G, 46H, 46J
32	47	All of 47
33	49A	All of 49A
34	49	All of 49 except 49A
35	51	All of 51
36	52	All of 52
37	55	All of 55
38	63	All of 63
39	65	All of 65

Set	Description		
40	71	All of 71	
41	75	All of 75	
42	93	All of 93	
43	97	All of 97	

The control card data used in the F-106 Maintenance Study shown in Figure 4-34 has the following format.

Card	Column	Description
1	3-10	First week of analysis
	13-20	Last week of analysis
2	3-10	First serial number for analysis
	13-20	Last serial number for analysis
3	3-10	Number of SG-WUC with week interval definition to define end of inspection
	13-20	Number of groups of non-SG-WUC
4	32-36	SG-WUC with greater than two-week interval for definition of end of inspection
5	32-36	SG-WUC with greater than two-week interval for definition of end of inspection
6	32-36	SG-WUC with greater than four-week interval for definition of end of inspection
7	8-10	Identification used on output for following group of NSG-WUC
	13-20	Starting index for WUC set number for the following group of NSG-WUC
8	3-10	Number of SG-WUC for origin used with following NSG-WUC dictionary
	13-20	Number of NSG-WUC in following dictionary
9	32-36	SG-WUC for origin with following NSG-WUC. (Number of cards set by Card B, Col. 1-10.)
10	32-36	NSG-WUC using above SG-WUC as origin. (Number of cards set by Card 8, Col. 11-20.)

			O COLUMN GENE	RAL PURPOSE PO	RM		
00 TITLE		1	VV 11E-7				PAGE 0F
10 NO	AMO	[WD-WAP	FUNCTION				MTE
18-1	#2	W-3	94	114	144	16-7	194
			733433713	* * * * * * * * * *		*****	777777777
100	500		111111111111111111111111111111111111111	11.00			
570.00231	59000164	******					
3	2	******					
		****	Q35Q0				1
			03.3				
		******	03400				
	2	*****	101-11-1				
7	11	******	******				
	141111111	*****	03399				
			.033	*****	******		
		*****	03400	*****		*****	
		* * * * * * * * * *			******		
	Balandad a bala en		74A				
	بعبسه درد فالمنف	-4-4-4-4-4-4-4	740	*****		-	
						1 4-4 4-4	
. 8 . 2 . 8 . 8 . 8 . 8 . 8 . 8 .		4- 6- 8- 1- 6- 4- 5 max.	7+D			A R & Audell	بالمستقدات
4 4 4-4 4-4			74F.	******		1 . 1 . 4	1 - "
			.74H				1
		بمنص والبراوية	7.4K				: =
			124				4
			749			* * * * · · *	
		1 1-1-1-4-4-2-1	749			1100	
			7.4.000	*******	<u> </u>		
1.01		1 4 4 3 4 4 4 4 4 4			44444.		
2		Laste to Late		1 1 4 4 4 4 4 7 4	4		
			03300				
			r remain				

on titut								
00 NO	AWO	EWO-WAP	FUNCTION	ANALYST			DATE	
W-1	M-5	#3	W4	W4	944	W-7	184	
2111424	1111111	01.2.20.50.700	3 3 3 3 3 2 6 3 6 6 6 0 1121216.5.6.2.0.0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	6 6 6 6 6 6 6 6 1 6 1 7 1 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3	
			03400					
	4		115					
	++		J.J.K.		****			
*****		4	July					
		· · · · · · · · · · · · · · · · · · ·	1.26			****		
			13		***			
			139		****		4	
هاهمه ها داده ۱ ه	+		13.T			****		
			1.4	******		****		
	+ * * * * * * * * * * * * * * * * * * *		23.K		*****	****		
	********	· · · · · · · · · · · · · · · · · · ·	23/1	****	*****	****	* * * * * * * * * * * * * * * * * * * *	
1 8.6			23 N	******	****	****		
			230			******		
			235					
	Litariania		23					
			41.F.					
			41				1	
			426			4.4.1.1.4.4.4		
			WZF.			A-1-A-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		
			426		4 4 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4			
			143		*****			
			44		*****	4441144		
	10000		435		And the state and a			
	15 111	111111111	45J		A			

Figure 4-34. Sample Input — Measure Observations at WUC Level (Sheet 1 of 2)
4-53

IOR TITLE ENGINEER							PNQE 0F
100 110		EWO-WAP	FUNCTION				DATE
W-1	W-2	#4	184	W4	#4	W-7	#4
1111111111	2 3 3 3 3 7 3 1 1 3 3 0:0 1.2:3.4:5:6.2:6.2	9999999999	5 5 5 5 5 5 5 5 5 5 5	,		12.3.4.5.4.7.4	7077777
			4-7				
			49 A				
			49				
			5.1				
	-		53				
			55				للقلة مرها مرما ما م
			63				
******		· · · · · · · · · · · · · · · · · · ·	. b.S	***************************************			
*******			72				
******					****		
***	*******		93				
-+ + + + + + + +				00000000	4.44444		
				ABCDEFRY2 KTM	*****		
4.4.6.6.4.4	1	3	+++++++++	Philippine.	ALEMAN FAME		
570002	34 33		*********	++++++++	A A A A A A A A A A A A A A A A A A A		1 1 1 1 4 4 4 1 1
570002				a der die bestehtigt d			1 1 1 1 1
5 70002				+	A A A A A A A		
570Q0Z	the second of the second of the					1111111	
570025				1			
580007		¥	L				
. 58000A	01 33	11	J	Lucia		I	
. 590000	02 7,3	1	1	1	1		
590000	03 33	1					1

o table							PAGE 0F
20 NO	AWO	EWO WAP	- FUNCTION	AMALYST			DATE
W-1	M-5	W-3	114	W-5	W4	₩.7	W4
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		5 5 5 5 1 3 5 5 5 6 1,2,2,5 5,0,2,0,0,0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5003533536	13,3,0,3,0,7,0,1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
59000000	37.1						
54000.006	37.1						
5,90000.10	33.1						
590,000,12	33.1						
54000015	33,1						
590,000,18	121						
5,900,0019	331						
59 000024							
5,90,000,30	3.73						
5,70,000,54	3.24						
59000057	324	*******	******	111111			
59000058	32.4					1	
59.00.0059	32.4	ana da tarbari a a sente e	a de la desta de la constante				
59000104	371			****	****		11112111
54000105	321			******			
59,000,108	32.4	****	111111		*****		1 1 1 1 1 1 1 1 1 1
59000110	232	Bis-Bid-Andid Bid-	A to be because to the be-	****	A KALAH SAS	1.4.14.14.1	
59000119	72.5	1 1 1 4-1-1-1 4 4 4	1 1 1 1 1 4 4 4 4 4			11111111	
59.00.0.14.1	32.4				alander e e e e e e e		
59000143		****	44.4.4.4.4.4.1.1.			8 8 4 8 5 8 8 2	
	324	A A		****	A A A A A A A A A A A A A A A A A A A	Aud. 4 4 4 1 4	1 4 4 5 4 5 5 4
59000144		a lada a sa sa	F F T T F T T T T T T T T T T T T T T T	4-1-4 (-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	4 4 4 4	4.4.4.4.1.1.1	1 4 4 5 1 1 100 1
. 5,9,00,0/45	44	بققمة فبقيدا ف		****		Autobili i d di l	
. 59.0 40.147	524				-	LABOR 11	4 4 4 4 4 4 4 4 4
5,9000,151			عاممهم معادم	44.644.636	المتعمدا والأمارة	didd 1 a b 1	1 1 1 1 1 1 1 1
59 000/52	324					1.1.1	

Figure 4-34. Sample Input — Measure Observations at WUC Level (Sheet 2 of 2)

Card	Column	Description
11	8-10	Identification used on output for following SG-WUC origins
	13-20	Starting index for the WUC set-number for the following group of NSG-WUC
12	3-10	Number of SG-WUC in following dictionary
	13-20	Number of NSG-WUC in following dictionary
13	32-36	SG-WUC for origins with following NSG-WUC (Number of cards set by Card 12, Col. 3-10)
14	32-36	NSG-WUC using above SG-WUC as origin (Number of cards set by Card 12, Col. 13-20)
15	41-49	Nine WDC used to define unscheduled maintenance
16	41-43	Three WDC used to define inspections
17	3-10	Position of first WDC, corresponding to Abort mission, in WDC table
	13-20	Position of second WDC, corresponding to Abort mission, in WDC table
18	3-10	Isochronal aircraft serial number. (These must be in ascending sequence)
	13-20	Starting week number for isochronal aircraft

The final card must have an eight-digit number in Columns 3-10 greater than the last serial number for Card 2, Columns 13-20. This is used as an end-of-file indicator.

Cards 1-3, 7-8, 11-12, and 17 and on are examples of Type 1 input cards; 4-6, 9-10, and 13-14 are examples of Type 2; and 15-16 are examples of Type 3 (as defined by the COBOL-FORTRAN Linkage).

Data for the various sets of WUCs is analyzed with measurements taken using the following independent and dependent variables. The independent variables are:

- a. Number of Weeks since Inspection. For each observation, this includes the week for which the values of the dependent variables are being determined, but not the week during which the inspection was completed.
- b. Number of Flight Hours Accumulated since Inspection. This includes all flight hours for the week of the observation, but none of the flight hours for the week during which the inspection was completed.

- c. <u>Number of Sorties Flown since Inspection</u>. This includes all sorties flown during the week of the observation, but none of those flown during the week in which the inspection was completed.
- d. Number of Landings Performed since Inspection. This includes all landings performed during the week of the observation, but none of those performed for the week during which the inspection was completed.

Not all dependent variables are measured against each independent variable. The dependent variables measured are:

- a. Unscheduled Maintenance Actions per Week.
- b. Unshceduled Maintenance Actions per Flight Hour.
- c. Unscheduled Maintenance Actions per Sortie.
- d. Unscheduled Maintenance Actions per Landing.

Variables a through d are defined to be the quotients obtained by dividing the number of unscheduled maintenance actions since an inspection by the number of weeks, flight hours, sorties, and landings since the inspection. These are observed as functions of independent variables a through d. A separate observation of each variable is performed for each of the inspection types associated with the WUC set. In each observation, a value of each variable is calculated for each week up to the next occurrence of an inspection of any of these types.

- e. The Number of Repair Actions (fix phase maintenance actions) per Inspection by Inspection type. This observation is calculated somewhat differently than the other dependent variables. For a given number of weeks after a given type of inspection, each aircraft provides a number of observations of whether or not a second type of inspection occurs in the given week. Each aircraft also provides a number of observations of the number of repair actions in the given week that result from the second type of inspection, as identified by the When-Discovered Code. The number of repair actions per inspection for this inspection type is then the total number of these repair actions on all aircraft divided by the total number of inspections of this type on all aircraft. The inspection types for which this variable is calculated are those for which When-Discovered Codes correspond to an inspection. Each observation includes all four independent variables, measured from the latest occurrence of an inspection of one of the specified types. A separate analysis is performed for each combination of When-Discovered Code and type of inspection used as a time origin.
- f. Abort Maintenance Actions per Sortie. An abort maintenance action is defined in the input on Card 17. The ratio of the number of these actions for an aircraft-week to the number of sorties in that week constitutes an observation of this dependent variable. This observation is analyzed with all four independent variables, which are to be measured from the latest occurrence of an inspection of one of the specified types. Separate observations are performed on data for the different inspection types.

The program is suitable for data from all USAF aircraft with the following dimensional limitations.

a.	Total number of WUC sets	200 maximum
b.	Number of WUC groups	7 maximum
c.	Number of WDCs	9 maximum
d.	Number of WDCs (Inspection)	3 maximum

4.6.2.3 Output Description. The output consists of a magnetic tape with 40 characters to a data record, blocked 70 to a tape record. A sample is shown in Figure 4-35; the format of the data record is:

Column	Value	Description
3-7		Group ID of Origin (defined by input data)
8-10	XXX	WUC Set Number (defined by input data)
11	0	For Columns 13-14 = 07, 08, 09, 10, 20
	1	Current Inspection HPF
	2	Current Inspection MAs
	3	Current Inspection Periodic
12	1	Non-Isochronal Aircraft
	2	Isochronal Aircraft
13-14	07	Unscheduled MA/Week
	08	Unscheduled MA/Flight Hour
	09	Unscheduled MA/Sortie
	10	Unscheduled MA/Landing
	18	Repair Action/Inspection
	20	Abort MA/Sortie
15	1	Origins - Hourly Postflight
	2	Origins — MAs
	3	Origins — Periodic
16	1	Independent Variable - Week
	2	Independent Variable - Flight Hour

Column	Value	Description
	3	Independent Variable - Sortie
	4	Independent Variable - Landing
18-23	XXXXXX	Numerator of dependent variable
25-30	XXXXXX	Denominator of dependent variable
32-37	XXXXXX	Independent variable
40	≠	End of data record

				LENGTH 124 CONTROL 2140 GOOD NO ONLOGGE	PAGE	
20 17 14 17 18 18 18 18 18 18 18 18 18 18 18 18 18	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	100 500 100 100 100 100 100 100 100 100	2016291 2010291 2010291 2010291 2010291 2010291 2010291 2010291 2010291 2010291 2010291 2010291	 10 20 20 10 20 20 20 20		
2 11 1 10 10 10 10 10 10	0000000	UGUN50 190053 1900591 1900591 1900591 1900591 1900591 1900591 1900591 1900591 1900591 1900591 1900591 1900591	000050 000050 000050 000050 000050 000050 000050 000050 000050 000050 000050 000050	 10 10 10 10 10 10 10 10	101	2.

Figure 4-35. Sample Output — Measure Observations at WUC Level

The record-keeping output file contains a copy of the input control data and an additional line containing:

Column	Description
1-8	Number of control data cards
9-16	Number of output observations
17-28	Number of input records from SG file
29-36	Number of input records from NSG file
37-44	Number of Type 1 input cards
45-52	Number of Type 2 input cards
53-61	Number of Type 3 input cards

A sample of the record keeping output is shown in Figure 4-36. On a recent IBM 370 run for an F-106 fleet of 150 aircraft, a total of 3,902,190 observations were measured, requiring 25 minutes of computer time and five reels of magnetic tape for output.

4.6.3 SORT AIRCRAFT-LEVEL OBSERVATIONS

4.6.3.1 <u>Purpose</u>. This IBM utility program sorts the aircraft-level observation tape records into an ordered file for subsequent use by the:

- a. Observation Count program.
- b. Regression and Correlation Analysis program.
- c. Trend Analysis program.

The logic flow for this Sort is shown in Figure 4-29.

4.6.3.2 Input Data and Procedures. The combined listing of the program and JCL cards is shown in Paragraph 6.10.3. The sort fields in order of hierarchy are:

Field	Column	Description
1	3-16	See description in Paragraph 4.6.1.3
2	32-37	Independent Variable

The sort input tape record is described in Paragraph 4.6.1.3, and a sample is shown in Figure 4-32.

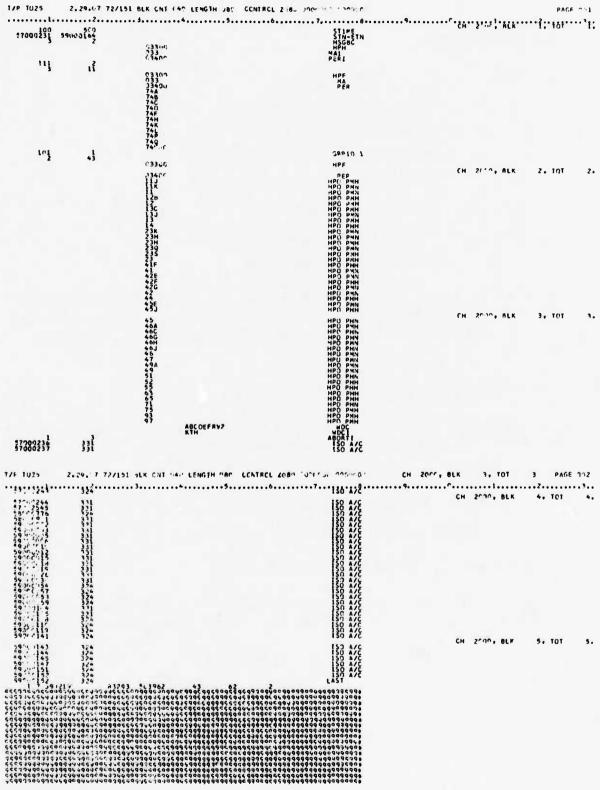


Figure 4-36. Sample Output - Record Keeping at WUC Level

4.6.3.3 Output Description. Sorting 55,288 records of the Aircraft-Level Observations file for an F-106 fleet of 150 aircraft took three minutes on the IBM 370.

4.6.4 SORT WUC-LEVEL OBSERVATIONS

- 4.6.4.1 <u>Purpose</u>. This IBM utility program sorts the WUC-level observation tape records into an ordered file for subsequent use by the Merge WUC-Level Observations program. Separate sorts were performed to prevent exceeding the sort capacity and to provide more efficient processing. The logic flow for this sort and the subsequent merge is shown in Figure 4-30.
- 4.6.4.2 Input Data and Procedures. The combined listing of the program and JCL cards is shown in Paragraph 6.10.4. The sort fields in order of hierarchy are:

Field	Column	Description
1	3-16	See description in Paragraph 4.6.2.3
2	32-37	Independent Variable

4.6.4.3 Output Description. Sorting approximately 800,000 records of the WUC-Level Observations file for an F-106 fleet of 150 aircraft took 20 minutes on the IBM 370. Five sort input tapes generated seven sort output tapes, which were subsequently merged.

4.6.5 MERGE WUC-LEVEL OBSERVATIONS

- 4.6.5.1 Purpose. This IBM utility program merges the sorted WUC-level observation tape records into an ordered multi-reel file for subsequent use by the:
- a. Observations Count program.
- b. Regression and Correlation Analysis program.
- c. Trend Analysis program.
- 4.6.5.2 Input Data and Procedures. The combined listing of the program and JCL cards is shown in Paragraph 6.10.5. The merge fields and tape record description are the same as described in Paragraph 4.6.4.2.
- 4.6.5.3 Output Description. Merging 3,902, 190 records of the sorted WUC-Level Observations file for an F-106 fleet of 150 aircraft took 29 minutes on the IBM 370. Seven sort input tapes generated a merged output file of five tapes.

4.6.6 OBSERVATIONS COUNT

- 4.6.6.1 Purpose. This COBOL program counts the number of observations in each of two files:
- a. Aircraft-Level sorted file.
- b. WUC-Level Observations merged file.

As shown in Figures 4-29 and 4-30, the respective outputs are input to the corresponding aircraft-level and WUC-level Regression and Correlation and Trend Analysis programs.

- 4.6.6.2 <u>Input Data and Procedures</u>. The combined listing of the program and JCL cards is shown in Paragraph 6.10.6. The respective input records for aircraft and WUC levels are described in Paragraphs 4.6.1.3 and 4.6.2.3.
- 4.6.6.3 Output Description. The output tape records consist of 30-character data records blocked 90 data records to a tape record. The output data record description is:

Field	Column	Description
1	3-16	See column breakdown in Paragraphs 4.6.1.3 and 4.6.2.3, respectively, for aircraft and WUC levels.
2	17-22	Count of Observations.
3	24-29	Count of Observations for Equal Values in Columns 3-10. (For record-keeping purposes, not used by subsequent programs.)

Figure 4-37 shows a sample tape output record for the Aircraft-Level Observations Count. Processing for an F-106 fleet of 150 aircraft on the IBM 370 resulted in the following input/output statistics.

- a. Aircraft Level. 55,288 input records and 54 output records required three minutes of processing time.
- b. WUC Level. 3,902,190 input records and 4342 output records required 23 minutes of processing time.

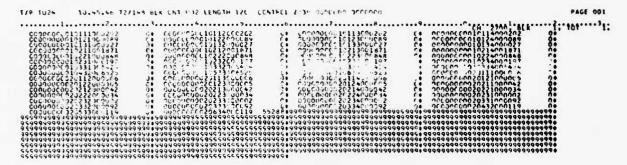


Figure 4-37. Sample Output - Observations Count

4.6.7 REGRESSION AND CORRELATION ANALYSIS

4.6.7.1 <u>Purpose</u>. The purpose of this program is to provide regression and correlation analysis of the data from the observation at both aircraft and WUC levels.

4.6.7.2 Input Data and Procedures. The program uses both FORTRAN and COBOL, with the latter providing the input/output capability for the FORTRAN in a similar manner as in Measure of Observation at the Aircraft Level, Paragraph 4.6.1.2. Linkage is provided by a call in the FORTRAN program to a COBOL program entry. The entries in the COBOL program and their uses are:

COBFRQ - reads the frequency count of observations tape records.

COBOBS - reads the sorted or merged observations tape records.

A listing of the program and the associated JCL is given in Figure 4-35.

The input consists of two magnetic tape files, one containing the observations and the other the frequency of each group of observations as described previously. The routines used can handle up to a maximum of 5000 observations. If more are available, records are skipped to reduce the total number of observations for computation to less than 5000. If fewer than four observations are available, the data for that group is bypassed. Under tain circumstances, the routine MISR can, for constant values of input data, provide extremely high output values (1.0E75). Under these conditions, flag is set and all output values are set to zero except the mean values and the number of observations.

4.6.7.3 Output Description. The output is a listing of the various parameters together with the identifier for the particular group. A sample output is given in Figure 4-38. The identifier is determined from the codes given in Paragraphs 4.6.1 and 4.6.2 at the aircraft and WUC levels, respectively. The analysis provides the following ouput parameters.

			LUNKELATIUM.	KEURESSIUN	STATISTICS					PAGE 1
06101001016711	CC-	04444 A= 3-76614 X516MA=	.07660 6=	700337	SEK= .05812	YS16MA=	SEE.	.24005	127980 F= N= 3857	6.97283
00101001010731	LL= ABAK=	00256 A" 7.67516 X510MA"	6.06013	YBAR =	SER- .02447	VS1GMA*	SEE*	. 12276	N= 979	.00639
00101001010812	Abak*	14.54905 XS1UMA=	.02335 0= 18.45290	Y 64K#	SEN 01601	YS16MA=	SEE -	.10766	10744 F= N= 3614	15.02769
00101001010832	LC= XBAK=	33.46216 XSIUMA=	33.67157	Y 6 AK =	SER* .00782	YS1GMA.	SE E •	.05597	05593 F. N= 947	1.26503
00101001010413	LC =	05997 A= 11.39900 X510MA=	.03299 b= 10.42552	YBAK= 00063	SEK# .02354	YS1GMA=	SEE-	.14414	.14388 F= N= 3614	13.03841
00101001010433	CC=	02651 A= 17.63068 X310MA=	.ulset 6= 14.53676	YHAR - OOGIL	SEK- .01178	YS1GMA=	SEE -	.07570	.07567 F.	.66464
00101061011014	KBMK .	05766 A= 11.61953 X510A#=	.03612 #= 10.79339	YBAK - 00046	SER 02477	YS1GMA=	SEE *	.18219	Nº 3614	12.13960
00101001011034	LL= XBAR=	02830 A= 02830 ASIUMA=	.01569 6=	YBAK - 00011	SER*.01177	YS16MA=	SEE -	.07570	.07567 F=	.76187
00101001012011	CC= ABAR#	3.43044 XSIUMA=	3.23566	YBAK - 00035	SER-	YS1 GMA=	SEE*	.01648	.01694 F= N= 3055	13.84725
00101001012012	CC =	.06541 A= 18.44876 XSlumA=		10000	56K=	451GMA-	SEE *	.01535	.01532 F. N- 3055	13.32035
00101011612013	ABAR=	.US9U9 A: lu.uluvu asluma=	00038 6= 7.98664	YBAK - OGOOB	SEN. 00045	421 CMA=	SEE .	.01294	.01242 F-	10.67646
06101061012014	Abak=	11.01637 X31UMA=	00071 6=	Y8 AK =	SER-00091	YS16MA=	SEE *	-01957	Nº 3055	18.30397
00101001015031	LL=	-00000 A= 7.98782 X510MA=	.00000 6=	YBAR - OCOUC	SEK-00000	421 CMA=	SEE-	.00000	.00000 F=	•00000
00101001012032	LC=	.00000 A= 37.32019 X510MA=	.00000	Y64K -	SER. 00000	YS16MA=	SEE-	.00000	00000 F=	.00000
00101001012033	LL= XOAK=	.00000 A= .1.9421> X516MA=	.00000	YUAR - 00000	SEK-00000	YS16MA=	SEE -	.00000	N= 657	.00000
00101001012034	CL =	*AMUIČK UECOE	.00000	YEAR - 00000	SER OUGOO	4516MA=	SEE -	.00000	00000 F=	•00000
001010010_0711	LL .	IUEBU. A. X.SIUMA.	.UL234 U# 2.82347	YUAK . UU 378	SER# .01489	YS16MA*	SEE-	.12863	.12819 F. N= 216	1.48472
66101001020731	ABAR -	-26459 A- 4.79104 XSIUMA=	06363 6-	YHAR = 00169	SER- .00488	YS16MA=	SEE-	.02291	N= 67	4.89303
00131001620612	CL . Abak =	.10380 A* 10.81204 ASTUMA=		YLAK = 00C23	SER- .00234	421CHA-	SEE*	.01762	Nº 198	6.85321
00101001020632	CL =	.10410 A= 21.60994 #510HA=	.00062 b=	Ybak . 00064	SER- .00161	YSIGMA.	SEE.	.00720	.00716 F-	.63545

Figure 4-38. Sample Output — Correlation and Regression Analysis

Output Title	Description
СС	Correlation Coefficient
A	Intercept for Independent Variable
В	Slope of Independent Variable
SER	Standard Regression Coefficient
SEE	Standard Error Estimate
F	F-level for Regression
XBAR	Mean of Independent Variable
XSIGMA	Standard Deviation of Independent Variable
YBAR	Mean of Observation
YSIGMA	Standard Deviation of Observation
N	Number of Observations

The output report tape records consist of 130-character data records blocked 15 data records to a tape record. Output is provided by a call from the FORTRAN program to a COBOL entry, COBOT2.

A fleet of 150 F-106 aircraft required one minute of computer time to process 55,288 records in 54 groups at the Aircraft Level. At the WUC Level, it required 25 minutes of computer time to process 3,902,190 records in 4342 groups.

4.6.8 TREND ANALYSIS

4.6.8.1 Purpose. The purpose of this program is to determine the trend of various data bank variables and the effect of scheduled inspections on these trends. The analysis is performed at the aircraft and WUC levels using the same program.

4.6.8.2 <u>Input Data and Procedures</u>. A listing of the program (written in COBOL), the JCL for use on the IBM 370, and a sample of input data is shown in Paragraph 6.10.8. The input data consists of three files:

a. Sorted observations.

For either WUC or Aircraft Level

b. Frequency count of observations.

c. Cutoff and dependent axis titles.

The generation of Files a and b has been covered previously. The data cards to create the third file have the following format.

Card	Column	Description
a	1-5	Printout Suppression Cutoff
b	1-80	Title used dependent axis, one card per title

A sample input, that used in the F-106 Scheduled Maintenance Study, is given in Figure 4-39.

The program is suitable for data from any USAF aircraft, with the following program dimension limitations.

Number of Dependent Titles 15 maximum

Number of Independent Intervals 200 maximum

The independent titles and the decoding for the dependent titles written into the program are compatible with the variables and codes generated in the measurement programs at both Aircraft and WUC Levels.

4.6.8.3 Output Description. The output is a plot for each group of input identifiers (Columns 3 through 16 of the input data) of the dependent versus independent variables. The structure of the plot tape consists of 130-character data records, blocked 15 to a tape record.

-			BO COLUMN GENE	RAL PURPOSE FO	PM .	ſ	NG
			PARETON	****			SAFE
91	81	110	14	114	14	47	94
] []				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
5							T
				MORM HOUR	S / PERIDO	LS	J
		I		MORM HOLE	S. / HOVELY	POSTE LIA	HT.
				ALE / SOL	T).E.		I
		I		F.H / WEEK			I
				SORTIE /	MEEK		1
		I		LANDING /	NOKK		
		I		UNSCHEPUL	ER MA / ME	EK	
	1	I		UNSCHEDU	ER MA / FL	IGHT MOUL	1
		I		UNSCHEDU		RTIE	I
	.1	I		DNSCHEDUL	ED MA / LA	NOING	
		I		DNECHEDAL	ER MA / IN	S. P.ECTI PN.	L
				REPAIR AC	TION / INC	PECTION	1
		I		ABORT MA	/ SORTLE.		
							1,,,,,,,,
							1
		I		4 - 4 4 4 4 4 4	4 1.4 . 4 . 1 .		
		1					1
							1
		1					1
		1					
		1					
		Luu			A-4-0 1 4		
		limin					
							1

Figure 4-39. Sample Input - Trend Analysis

At the WUC Level, the values for printout suppression have a significant impact on output volume. The effect of cutoff on output volume is shown below, based on the F-106 experience for 150 aircraft.

Cutoff Values	Number of Plots at WUC Level
0	3680
5	2059

A fleet of 150 F-106 aircraft required three minutes to process 55,300 records and ten minutes to print the 54 plots at the Aircraft Level. At the WUC Level, it required 30 minutes to process 3,902,190 records and three hours to print the 2059 plots. A sample output from a recent F-106 run is shown in Figure 4-40.

4.7 REMOVAL ACTION ANALYSIS - TASK V

The objective of this task is to generate the cumulative distribution for the interval between removals on each WUC and to rank the codes in order of their frequencies of removal. A system of nine COBOL programs has been developed to perform this task. (See Figure 4-41 and the following page.)

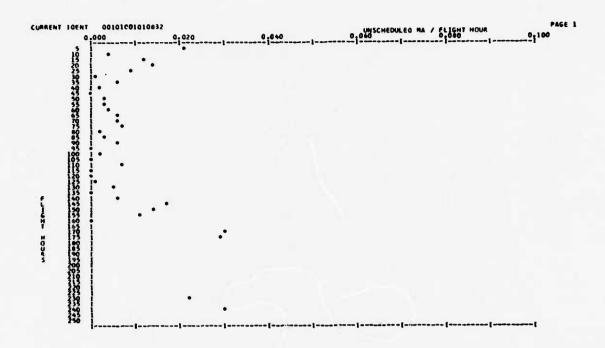


Figure 4-40. Sample Output - Trend Analysis

- a. Task V Preprocessor.
- b. Sort WUC Frequency.
- c. Write WUC Frequency.
- d. Sort Non-isochronal Frequency.
- e. Write Non-isochronal Frequency.
- f. Sort Isochronal Frequency.
- g. Write Isochronal Frequency.
- h. Sort Removal Intervals.
- i. Cumulative Distribution of Removal Intervals

Paragraph 6.11 contains the listing of the source programs and the corresponding job control cards.

4.7.1 TASK V PREPROCESSOR

4.7.1.1 <u>Purpose</u>. The purpose of the Task V Preprocessor is to generate two output files for further processing, using the sorted data bank and the isochronal aircraft definition as input data.

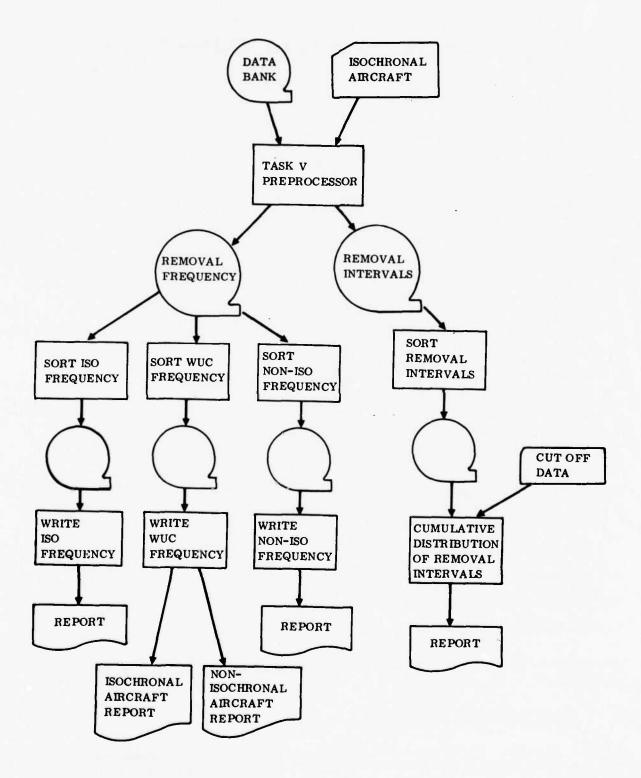


Figure 4-41. Logic Flow — Removal Action Analysis 4-68

4.7.1.2 Input Data and Procedures. There are two types of input data: tape and card deck. Tape data consists of a data bank sorted in the order of WUC, HMC, aircraft serial number, and week number. The tape record layout is shown in Figure 4-4. The data card deck has the following format.

Card	Column	Description
а	3-5	Number of isochronal aircraft.
b	3-10	Isochronal aircraft serial number (number of cards set by Card a).

A sample input data deck is shown in Figure 4-42.

The Removal Prequency file is generated by accumulating the maintenance actions (Type 3 record, Columns 44 through 46) for each WUC for the two aircraft subsets. The removal action intervals are measured between occurrances of removals of each WUC in terms of the number of weeks and the number of flight hours.

4.7.1.3 Output Description. The output consists of two tape files, both 20 characters to a data record and blocked 90 to a tape record. The format of the Removal Frequency file is:

Column	Description
1-5	Work Unit Code (WUC)
6-10	Isochronal Frequency
11-15	Non-isochronal Frequency
20	Record Mark

A sample output is shown in Figure 4-43.

The format of the Removal Intervals file is:

Column	Description
1-5	Work Unit Code (WUC)
10-15	Observation Data
17	Isochronal Indicator:
	=1 Isochronal Inspection
	=2 Non-isochronal Inspection

. 80 COLUMN GENERAL PURPOSE FORM								
			HE					
	EWG WAP	FUNCTION	ANALYST			8471		
M-5	W-3	₩4	W4	94	18-7	94		
1 1 4 1 1 1 1 1 1 1	3 2 2 2 2 3 3 2 2 3 3 9 3 1 2 2 3 0 1 5 1 9 1 3 1 0 0	2 2 3 2 3 2 3 2 2 4	4 4 4 4 4 4 4 4 4 1					
33/								
. 33.1								
. 3Zk								
.331	J							
. 331								
. 324	1							
. 33.1								
. 331								
. 33./								
33.1						· · · · · · · · · · · · · · · · · · ·		
3.3.1								
3.3.1								
. 3.1/					******	1		
33)								
						4		
. 231					****	4		
. 3.31				*********		• • • • • • • • • • • • • • • • • • • •		
331					*****	·····		
324					*****	· · · · · · · · · · · · · · · · · · ·		
. 3.24						· · · · · · · · · · · · · · · · · · ·		
	1			******		· · · · · · · · · · · ·		
	1					4		
. 33.1	1			*******		+		
	1		*****	********				
	33/ 33/ 33/ 33/ 33/ 33/ 33/ 33/	#: #3	#2 #3 #4		THE TIME	100 100		

00 TITLE							ME
00 NO	AWO	[WO WAP	FUNCTION	ANALYST		- BATE	
W1	W-2	W1	#4	W-5	184	W-7	94
1 2 2 4 3 6 6 6 1	11111111	111111111111111111111111111111111111111	1.3.316.316.716.31	112,3461316,316,918	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	112121418141718181	17777777
. 59,000 108	324						
59000 110	324	1		L			
59.00.0.1.19	3.25						
. 59,000,141	724	1		1			
5,9,000,143	. 7.24						
59000144	3.20						
59000 145							1
59.00.0.14	. 224						
. 590,00151	724			1			1
5,9,00015	324						
		1					1
	1						<u> </u>
			- Landanian	 	1		1
							
							
				1			
				1			

	1					1	1
	hamen .						
				1			
			1				

Figure 4-42. Sample Input — Task V Preprocessor

TIP TORE 11-11-06 72/144 BLK CNT (10 LENGTH 120 CENTROL 2020 MONDER OF OTTOOR	PAGE	100
	. tat	2.
LIMANUECE DOCAC ALIMAC UCUDADO IN BIRANCUAGO DOUIC BIRANCUADO NO BIRANCO DO DA CONTROL BIRANCO DO CONTRA BIRANCO DO CONTROL BIRANCO DE CONTROL BIRANCO DE CONTROL BIRANCO DO CONTROL BIRANCO DE CONTROL BIR		
1 AA 1000 00 07 07 07 00 00 00 00 00 00 00 00	. 101	•
234	. 101	5.

Figure 4-43. Sample Output - Removal Frequency

Column	Description
19	Data Type:
	=1 Interval in Weeks
	=2 Interval in Flight Hours
20	Record Mark

A sample output is shown in Figure 4-44.

On a recent IBM 370 run for an F-106 fleet of 150 aircraft and 2201 WUCs, total computer time was eight minutes. A total of 1620 records were generated in the Removal Frequency file and 121,721 records in the Removal Interval file.

	4 BLK CNT OLG LENGTH 120 CONTROL 2020 0000000 0000000	PAGE 001
11AA1 1 COCHA 2 1-11AA1 11AA1 1 1AA1 1 20CHA 2 1-11AA1 11AA1 120CHA 2 1-11AA1 11AA1 120CHA 2 1-11CAA 11CAA 1	C34194 2 2411841 C9000H 2 1411841 C9039C 2 2411841 C9040H 2 2411841 C9040H 2 1411841 C9040H	0000006 2 1011CA1 00022 2 0 000000 2 1011CA1 00022 2 2 0 000000 2 1011CBA 00022 2 2 0 000000 2 1011CBA 000010 2 2 0 000000 2 1011CBA 000010 2 2 0 000000 2 1011CBA 000010 2 2 0 000000 2 1011CBA 000000 2 2 0 000000 2 1011CBA 0000000 2 2 0 000000 2 1011CBA 0000000 2 2 0 0000000 2 2 0 0000000000
1 1 1 1 1 1 1 1 1 1	00013F 2 2*11CBA	00002£ 2 1011CBA 000730 2 200 000001 2 1011CBA 000730 2 200 000001 2 1011CBA 000730 2 200 000001 2 1011CBA 000730 2 200 000010 2 1011CBA 000730 2 200 000710 2 1011CBA 000731 2 200 000710 2 1011CBA 000731 2 200 000711 2 1011CBA 000771 2 200 000711
1	COURT COUR	00070e 2 1 1 1 1 CBA
1 1 1 1 1 1 1 1 1 1	0.000	000000 2 1+11CBA 000004F 2 2+ 000004F 2 2+ 000004F 2 1+11CBA 000028 2 2+ 000004F 2 1+11CBA 000104F 2 2+ 000004F 2 1+11CBA 0000104F 2 2+ 0000012 2 1+11CBA 000004F 2 2+ 000006F 2 1+11CBA 000104F 2 2+ 000006F 2 1+11CBA 00006F 2 2+ 00006F 2 1+11CBA 0006F 2 2+ 0006F 2 1+11CBA 0006F 2 2+ 00
11CBA COLONE 2 1-11CBA	COUCH 2 2:11CBA COCCH 2 1:11CBA COCCH 2 2:11CBA COCCH 2 1:11CBA COCCH 2 2:11CBA COCCH 2 1:11CBA COCCH 2 1:11CB	Conclus Communication Co

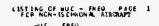
Figure 4-44. Sample Output — Removal Intervals

4.7.2 SORT WUC FREQUENCY

- 4.7.2.1 <u>Purpose</u>. The purpose of this program is to sort the output file Removal Frequency for further processing.
- 4.7.2.2 <u>Input Data and Procedures</u>. Input data consists of the tape file Removal Frequency as described in Paragraph 4.7.1.3.
- 4.7.2.3 Output Description. The output tape file, 20 characters to a data record blocked 90 to a tape record, consists of Isochronal and Non-isochronal WUC repair action frequency data, sorted according to the following key in ascending order.

Column	Description		
1-5	WUC		

It required about one minute on the IBM 370 to sort 1620 records for the 150-aircraft F-106 fleet.



4.7.3 WRITE WUC FREQUENCY

- 4.7.3.1 Purpose. This program generates a report file listing the removal action by ascending WUC.
- 4.7.3.2 Input Data and Procedures. The input data consists of the output of the sort described in Paragraph 4.7.2.3.
- 4.7.3.3 Output Description. The output consists of two report files (one for Isochronal and one for Non-Isochronal data), both having 70 characters to a data record blocked 40 to a tape record. It required two minutes on the IBM 370 to generate and print both report files for the 1620 F-106 WUCs. A sample output is shown in Figure 4-45.

4.7.4 SORT NON-ISOCHRONAL FREQUENCY

- 4.7.4.1 Purpose. The purpose of this program is to sort the output file Removal Frequency for further processing.
- 4.7.4.2 Input Data and Procedures. The input data consists of the tape file Removal Frequency as described in Paragraph 4.7.1.3.

Figure 4-45. Sample Output -Frequency

4.7.4.3 Output Description. The output tape file, Report of Removal 20 characters to a data record blocked 90 to a tape record, consists of the Isochronal and Non-Isochronal WUC repair action frequency data,

sorted according to the following key in descending order.

Column	Description
11-15	Non-Isochronal Frequency

It required about one minute on the IBM 370 to sort 1620 records for the 150-aircraft F-106 fleet.

WRITE NON-ISOCHRONAL FREQUENCY 4.7.5

4.7.5.1 Purpose. This program generates a report file listing the Non-Isochronal WUC by decreasing removal action frequency.

- 4.7.5.2 Input Data and Procedures. The input data consists of the output of the sort described in Paragraph 4.7.4.3.
- 4.7.5.3 Output Description. The output consists of a report file, 70 characters to a data record blocked 40 to a tape record. It required two minutes on the IBM 370 to generate and print the report files for the 1620 F-106 WUCs. The output is very similar to that shown in Figure 4-45.

4.7.6 SORT ISOCHRONAL FREQUENCY

- 4.7.6.1 <u>Purpose</u>. The purpose of this program is to sort the output file Removal Frequency for further processing.
- 4.7.6.2 Input Data and Procedures. Input data consists of the tape file Removal Frequency as described in Paragraph 4.7.1.3.
- 4.7.6.3 Output Description. The output tape file, 20 characters to a data record blocked 90 to a tape record, consists of the Isochronal and Non-Isochronal WUC repair action frequency data, sorted according to the following key in descending order.

Column	Description		
6-10	Isochronal Frequency		

It required about one minute on the IBM 370 to sort 1620 records for the 150-aircraft F-106 fleet.

4.7.7 WRITE ISOCHRONAL FREQUENCY

- 4.7.7.1 Purpose. This program generates a report file, listing the Isochronal WUC by decreasing repair action frequency.
- 4.7.7.2 Input Data and Procedures. Input data consists of the output of the sort described in Paragraph 4.7.6.3.
- 4.7.7.3 Output Description. The output consists of a report file, 70 characters to a data record blocked 40 to a tape record. It requires two minutes on the IBM 370 to generate and print the report files for the 1620 F-106 WUCs. The output is very similar to that shown in Figure 4-45.

4.7.8 SORT REMOVAL INTERVALS

4.7.8.1 <u>Purpose</u>. This program is used to sort output file Removal Intervals for further processing.

- 4.7.8.2 Input Data and Procedures. The input data consists of the tape file Removal Intervals as described in Paragraph 4.7.1.3.
- 4.7.8.3 Output Description. The output tape files, 20 characters to a data record blocked 90 to a tape record, consists of removal intervals, in weeks and flight hours, sorted in the following ascending order.

Key	Column	Description
1	17	Isochronal Indicator
2	19	Data Type
3	1-5	Work Unit Code

It required about three minutes to sort the 121,721 records on the IBM 370 for the fleet of 150 F-106 aircraft.

4.7.9 CUMULATIVE DISTRIBUTION FOR REMOVAL INTERVALS

- 4.7.9.1 <u>Purpose</u>. This program generates cumulative distribution plots for removal intervals by WUC and isochronal subset type. The number of observations, maximum and minimum values, and the mean and variance of the observation are printed on the top of each plot.
- 4.7.9.2 Input Data and Procedures. The input data card has the following format.

Column	Description
1-5	Printout Suppression Cutoff for Non-Isochronal Subset
6-10	Printout Suppression Cutoff for Isochronal Subset

Figure 4-46 is a sample data card.

- 4.7.9.3 Output Description. Cumulative distribution plots by a printer contain:
- a. Work Unit Code (WUC)
- b. Output Data One of two types:

Removal Interval Length in Weeks

Removal Interval Length in Flight Hours

- c. Isochronal or Non-Isochronal Subset
- d. Number of Observations
- e. Maximum and Minimum Values
- f. Mean and Variance

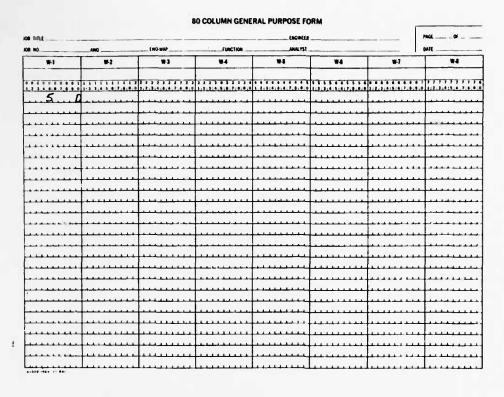


Figure 4-46. Sample Input — Cutoff for Removal Intervals

The plot tape consists of 130-character data records blocked 15 to a tape record. It took seven minutes on the IBM 370 to process 121,721 records for the F-106 fleet and one hour on the printer to make 1050 plots. A sample output from a recent F-106 run is shown in Figure 4-47.

4.8 AIRCRAFT INSPECTION HISTORIES

- 4.8.1 <u>PURPOSE</u>. The purpose of this task is to produce a plot of accumulated flying hours versus calendar time in weeks for inspections.
- 4.8.2 <u>INPUT DATA AND PROCEDURES</u>. The input data consists of plot titles, inspection WUCs, and plot symbols. The data card deck has the following format.

Card	Column	Description
1	1-80	Title describing the horizontal axis
2	1-80	Title describing the vertical axis
3	1	Number of Inspection Work Unit Code (WUC)
3	10-14	First Inspection WUC

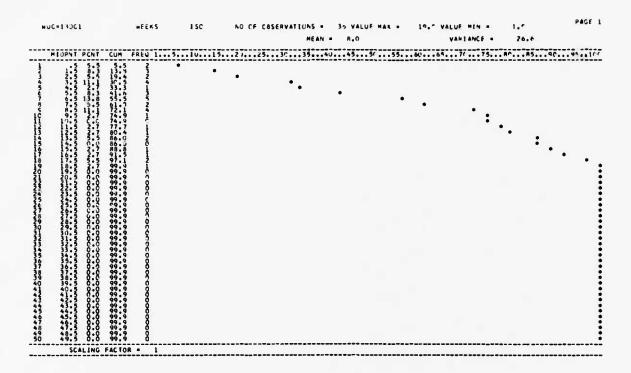


Figure 4-47. Sample Output — Cumulative Distribution for Removal Action Interval

Card	Column	Description
3	20-24	Second Inspection WUC
3	30-34	Third Inspection WUC
3	40-44	Fourth Inspection WUC
3	50-54	Fifth Inspection WUC
3	60-64	Sixth Inspection WUC
3	70	Plot symbol for first WUC
3	71	Plot symbol for second WUC
3	72	Plot symbol for third WUC
3	73	Plot symbol for fourth WUC
3	74	Plot symbol for fifth WUC
3	75	Plot symbol for sixth WUC

The current program handles up to six inspection WUCs. If fewer than six inspection WUCs are required, the unused columns should be left blank. A sample input data is shown in Figure 4-48.

8 HO	AWG						PAGEOF	
W-1	W-2	W-3	W4	W-6	W-0	W-7	849	
					-			
8 8 8 8 8 8 8 1 2 3 4 5 6 7 8 8 8	1111111111	1111111111	1 1 3 3 3 3 3 3 3 3 4		********		********	
						LEGHT HOUR		
					SSKS.		1	
	1500	33.2	2.2.0		3400	******	23.9.5	
	Time to	i indiana	***************************************	2.2.20			3300	

							<u> </u>	
				1				
		******					+	
*****		******	-			*****		
							1	
						L	1	

			******			*****		
			L	1	1		Lucia	
							1	
*****	*******				*****	*****		
****		*******		+	 		 	
					-			
		Luni						

Figure 4-48. Sample Input - Aircraft Inspection Histories

4.8.3 OUTPUT DESCRIPTION. A sample output is shown in Figure 4-49. The aircraft serial number and a list of the plot symbols with matching inspection WUCs are printed on the top of each plot. An asterisk symbol will be printed if more than one inspection WUC occurs at the same week and flight hour. The 150-aircraft F-106 fleet took three minutes on the IBM 370 to produce 21,997 inspection history plots.

4.9 COMPUTER OUTPUT ANALYSIS

- 4.9.1 OUTPUT ANALYSIS FREQUENCY ANALYSIS TASK I. The purpose of this test is to determine what kinds of malfunctions occur on a WUC, and when they are discovered. These results are then compared with the definition of the scheduled inspections themselves. The results provide a basis for answering such questions as:
- a. Do the inspections discover the discrepancies they look for or are these more often discovered in some other phase of aircraft operations?
- b. Are there malfunctions discovered in other phases for which changes in the current inspection packages might be proposed?

The maintenance action frequency analyses were used extensively during the maintenance program analysis and definition process. Task I also supplied input data to the effectiveness analyses.

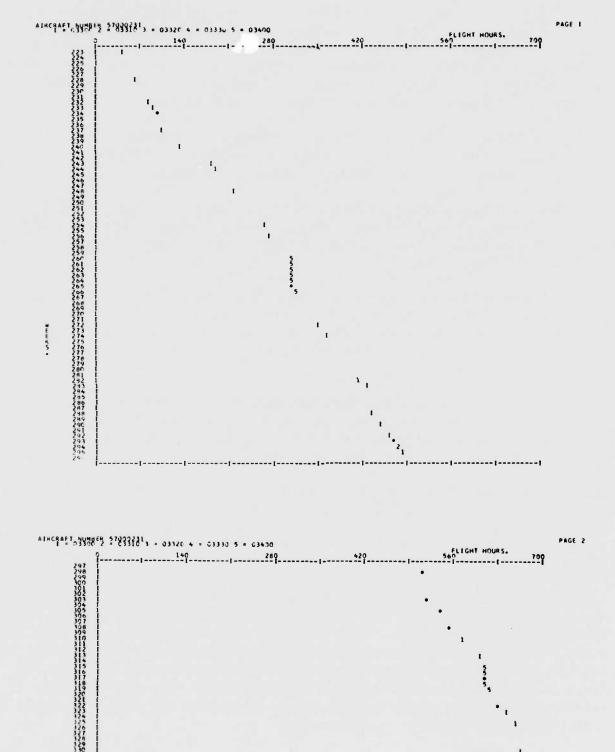


Figure 4-49. Sample Output — Aircraft Inspection Histories 4-79

4.9.2 OUTPUT ANALYSIS — MANHOUR AND NOR TIME ANALYSES — TASK II. The purpose of this task is to determine the variation in NORM hours and manhours charged to each type of scheduled or special inspection. Any NOR time charged during preflights and basic postflights is recorded as unscheduled maintenance. Manhours expended during the look phase of these inspections is charged as support general, however, so these inspections are included when calculating the look-phase manhour distributions.

For a given type of scheduled inspection, each occurrence of that inspection on an aircraft provides an observation of the NORM hours charged during the look and repair phases of the inspection and the manhours charged during the look phase.

In addition, this analysis calculated the number of manhours required for maintenance actions on specific WUCs, either repair actions stemming from inspections or unscheduled maintenance actions. Also, the NORM and NORS hours charged against specific WUCs are calculated.

The NORM hour per scheduled inspection distributions are used in conjunction with the Network Analysis Model to obtain estimates of network branch span times for use in evaluating the new scheduled inspection packages. The NORM and manhour per WUC maintenance action results are required for the effectiveness analyses of alternative maintenance programs.

From the NORM and manhour per maintenance action data, the corresponding rates for each WUC set are derived. These in turn are input to the effectiveness model so that the NORM hours and maintenance manhours accumulated for unscheduled maintenance during the intervals between inspections can be calculated.

- 4.9.3 OUTPUT ANALYSIS INTERVAL LENGTH ANALYSIS TASK III. The purpose of this analysis is to determine the inspection interval lengths actually experienced during the current maintenance program and also to determine interval variability. The WUC maintenance action interval distributions provided a basis for determining WUC failure characteristies.
- 4.9.4 OUTPUT ANALYSIS EFFECT OF TIME AFTER INSPECTION TASK IV. This analysis was performed to determine the trends of various data bank variables with time after scheduled inspections and the effects of scheduled inspections on these trends. The correlation and regression analyses provided linear empirical functions for the various parameters versus time after for use in the effectiveness analyses. These results were supplemented by the trend analysis scatter diagrams so that the validity of the linear regression analyses could be assessed and appropriate adjustments made when the time effect was clearly nonlinear.

- 4.9.5 OUTPUT ANALYSIS REMOVAL ACTION FREQUENCIES AND INTERVAL LENGTH DISTRIBUTIONS. The purpose of these analyses was to provide a basis for determining the requirements for time changes and scheduled removals for the various WUCs. The suitability of the current time change specifications was assessed using this data in the maintenance program analysis process. These results, along with the results from Task III, were the basis for determining how well the current time change specifications agreed with the failure characteristics of the WUC.
- 4.9.6 OUTPUT ANALYSIS AIRCRAFT INSPECTION HISTORIES. The inspection history analysis provided a plot of inspection events versus weeks and accumulated flying hours for each aircraft in the data bank. These provide a record of scheduled inspection events and intervals as they actually occurred for each aircraft. This analysis supplemented the other tasks in determining actual inspection flow times and intervals. This was necessary because recording anomalies and errors in the data system resulted in apparent gaps during the inspections and spurious short intervals that could be corrected manually. Improved logic for Tasks II and III was developed as a result of processing the results of this task.

SECTION 5

EFFECTIVENESS AND COST PROGRAMS

5.1 GENERAL DESCRIPTION

For the Phase III study, three sets of programs were developed:

- a. Effectiveness Model
- b. Network Analysis Model (NAM)
- c. Manhour and Not Operational Ready Maintenance (NORM) Data (for WUC sets)

Detailed discussions, sample input, sample output, and IBM 370 running statistics for these programs are in Paragraphs 5.2, 5.3, and 5.4, respectively. Listings of the programs, together with the control cards, are contained in Paragraphs 6.13, 6.14, and 6.15, respectively.

5.2 EFFECTIVENESS MODEL

5.2.1 PURPOSE. The purpose of the effectiveness model is to predict the impact on aircraft availability and mission reliability of maintenance program variations in scheduled inspection package content and interval lengths. The requirement to meet the flying hour program is treated as a constraint. This is done by inputting aircraft utilization to the effectiveness model along with the description of the alternative maintenance program. The model then calculates the effectiveness as a function of interval length over the maintenance program period, which is the time interval between occurrences of the major inspection of the maintenance program.

The basic approach of the effectiveness model is to calculate the values of certain measures that describe the impact of the maintenance program by a process of summation starting at the work unit code (WUC) set level. For this reason, the distributions of the basic variables involved in this process can be described merely in terms of their mean and standard deviations, since application of the "central limit" theorem implies that the sum variables calculated by the model will be approximately normally distributed independently of how the summands are distributed. Use of this fact in developing the model has vastly simplified its structure and minimized the need for manipulating probability distributions for the variables.

A general flow chart of the effectiveness model is shown in Figure 5-1. Calculations made by the model fall naturally into four major groupings. The first consists of those at the Inspection Task/WUC set level; results of these calculations are combined in the second step to produce aircraft-level values. The third step consists of those calculations

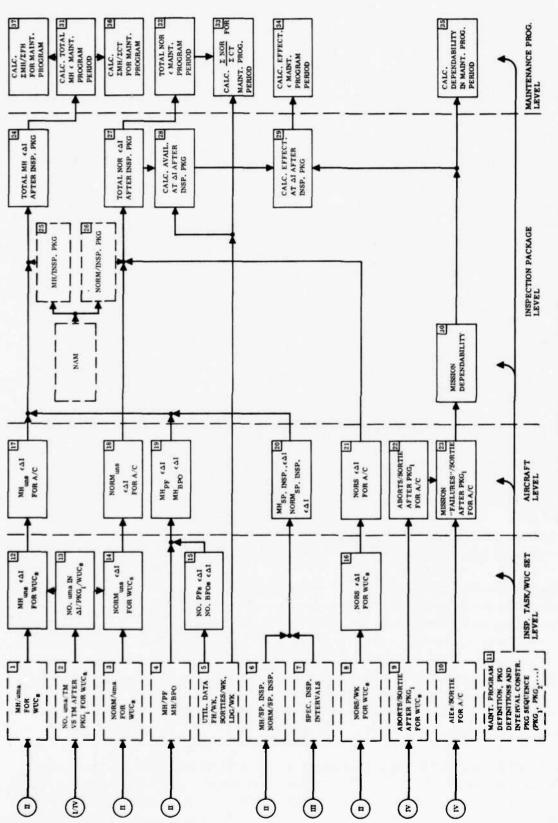


Figure 5-1. Effectiveness Model

pertaining to two consecutive inspection packages and the intervening interval, ΔI . At this level, total not operational ready—supply (NORS), availability, dependability, manhours, and effectiveness are evaluated parametrically as functions of inspection package type and interval length, ΔI . The final step consists of combining the results obtained in the third step to produce total manhours, NOR hours, availability, and effectiveness for the maintenance program period.

5.2.2 INPUT DATA AND PROCEDURES. In Figure 5-1, input values are represented by the blocks with dashed outlines. Unscheduled maintenance is described by data input in Blocks 1, 2, and 3. This includes the number of manhours per unscheduled maintenance action for each WUC set, the number of unscheduled maintenance actions per unit time for a WUC set versus time after the inspection package, and the number of NORM hours per unscheduled maintenance action for each WUC set.

In Block 4, the manhour distributions for preflight and basic postflight inspections are input. Total manhours for these inspections during ΔI are calculated using this data and the frequencies for these inspections as determined from the aircraft utilization specified in Block 5.

Special inspections are described in Blocks 6 and 7 in terms of the manhours and NORM hours per inspection and inspection intervals. NORS hours per week for each WUC set are input in Block 8.

Operational data on which a measure of dependability can be based is input in Blocks 9 and 10. This data includes the number of aborts per sortic following the different types of inspection packages at the WUC set level and the number of AIEs (accidents, incidents, and emergency unsatisfactory material reports, EUMRs) per sortic at the aircraft level.

Additional data describing the maintenance program, such as the inspection package sequence and constraints on the variability of ΔI , is input in Block 11. The distributions of manhours and NORM hours per inspection package, as calculated by NAM, are input in Blocks 25 and 26.

The effectiveness analysis procedure consists of the four major calculation steps mentioned earlier. These are described in detail in the following paragraphs.

5.2.2.1 Inspection Task and WUC Set Calculations. At the inspection task and WUC set level, distributions for the numbers of manhours and NORM hours during ΔI for each WUC set are calculated in Blocks 12 and 14 in Figure 5-1. This is accomplished by computing the expected number of unscheduled maintenance actions during ΔI for each WUC set following the different types of inspection packages in Block 13 and combining them with the manhours and NORM hours rates.

To calculate preflight and basic postflight inspection manhours, distribution of the number of sorties during ΔI is calculated from the utilization data in Block 5. This

results in an estimate for the distribution of the number of basic postflight inspections during ΔI and, using a derived ratio, r, for the number of preflights per postflight, an estimate for the distribution of the number of preflights in ΔI in Block 15. Combining these results with the input inspection manhours, distribution of the number of preflight and basic postflight manhours is calculated in Block 19.

The NORS hours during ΔI , by WUC set, are calculated in Block 16 using the rates input in Block 8.

5.2.2.2 Aircraft-Level Calculations. Unscheduled maintenance manhours and NORM hours during ΔI for the various WUC sets are aggregated to obtain the distributions for these parameters at the aircraft level in terms of their mean and standard deviations.

For special inspections, the distribution for the number of special inspections during ΔI is obtained from the interval distribution for each type of inspection. Manhours and NORM hours for each type of special inspection during ΔI are then calculated in Block 20 from the input manhours and NORM hours per inspection.

In Block 22, the aborts/sortie rates following different types of inspections are calculated for the total aircraft by summing the rates for the various WUC sets. The aircraft abort rate is combined with the AIEs/sortie rate in Block 23 to obtain a mission "failures" per sortie rate following the different types of inspections.

5.2.2.3 Inspection Packages and Intervening Interval, ΔI . Parametric results for the several variables for two consecutive inspection packages and the intervening interval are obtained as functions of ΔI .

The following calculations are included in this step: the distribution of the total manhours during ΔI following a given type of inspection package is calculated in Block 24 of Figure 5-1 by determining the distribution for the total of unscheduled maintenance manhours in ΔI , preflight and basic postflight manhours in ΔI , special inspection manhours in ΔI , and manhours in the following scheduled inspection.

Distribution for the total NOR hours during ΔI and the subsequent scheduled inspection is calculated in a similar way in Block 27 by determining the distribution for the total of the unscheduled NORM hours in ΔI , the special inspection NORM hours in ΔI , the total NORS hours in ΔI , and the NORM hours in the subsequent scheduled inspection.

From the utilization data input in Block 5, distribution of the length of ΔI in calendar time when ΔI is expressed in terms of one of the other three time bases – flying hours, sorties, and landings — is calculated. This parameter is required in order to calculate the distribution of availability in Block 28. Availability is the fraction of the time the aircraft is operationally ready, that is:

$$A_{V} = 1 - \frac{\Sigma NOR}{\Sigma CT}$$

where Σ CT is accumulated calendar time. This measure is calculated as a function of ΔI in Block 28.

From the mission "failure" rate (F/S/A) calculated in Block 23, the dependability parameter is calculated in Block 30. This is the probability that a mission "failure," that is, an abort or AIE, will not occur during the sortie:

$$D = \exp(-F/S/A)$$
.

Effectiveness as a function of ΔI for two consecutive inspection packages and the intervening interval is evaluated at Block 29. This consists of determining the probability distribution of the product of availability and dependability.

5.2.2.4 Distribution of Total Manhours. In the fourth and final step of the effectiveness analysis, distribution of the total manhours across the maintenance program is determined as a function of ΔI in Block 31. The NOR hours versus ΔI distributions for the consecutive packages are the basis for determining the NOR hours for the maintenance program as a function of ΔI in Block 32.

Distributions for total calendar time for the maintenance program period are calculated and used to calculate distributions for the manhours per unit time in Block 36, NOR hours per unit time in Block 33, and manhours per flight hour in Block 37.

Dependability during the maintenance program is calculated as a function of ΔI in Block 35, and the distribution of effectiveness as a function of ΔI is calculated in Block 34.

5.2.3 <u>DETAILED DESCRIPTION OF EFFECTIVENESS MODEL</u>. A detailed flow chart of the effectiveness model is shown in Figure 5-2. In the following discussion, the equations for the various steps in the analysis will be derived. Definitions of the parameters and variables in the model are given first.

The parameters that define the maintenance program and major inspections are input in Blocks 1 and 2 of Figure 5-2. These are:

DELI	The basic inspection interval length, ΔI .
KI	An integer specifying the time base for ΔI , $KI = 1, 2, 3, 4$ for ΔI in weeks, flight hours, sorties, and landings, respectively.
NSCT	The number of different types of scheduled inspection packages.
NFOL(I)	The number of types of scheduled inspection packages that can occur at the end of the interval $\Delta I(DELI)$ following an inspection package of Type I.
NSCH(I, J)	The number of intervals that begin with a Type I inspection package

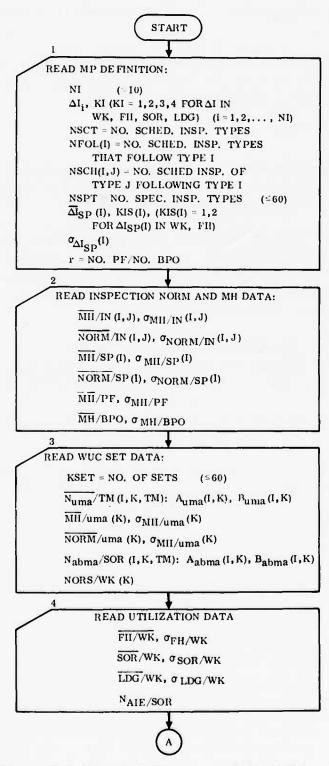


Figure 5-2. Detailed Effectiveness Model (Sheet 1)

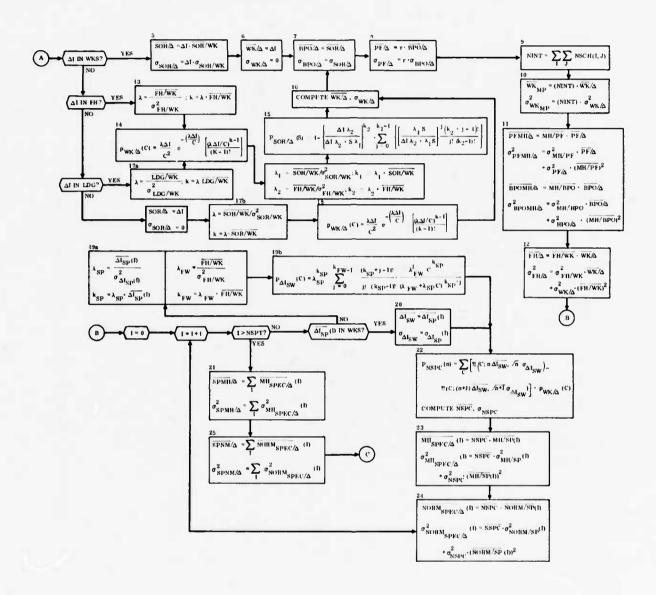


Figure 5-2. Detailed Effectiveness Model (Sheet 2)

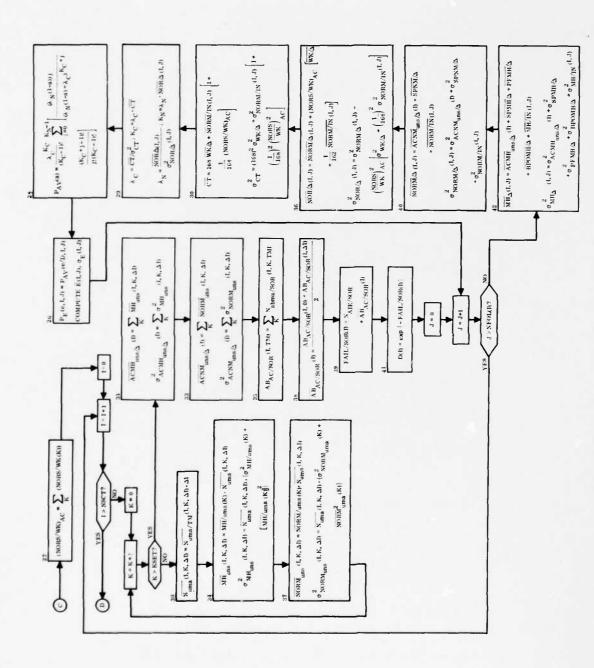


Figure 5-2. Detailed Effectiveness Model (Sheet 3)

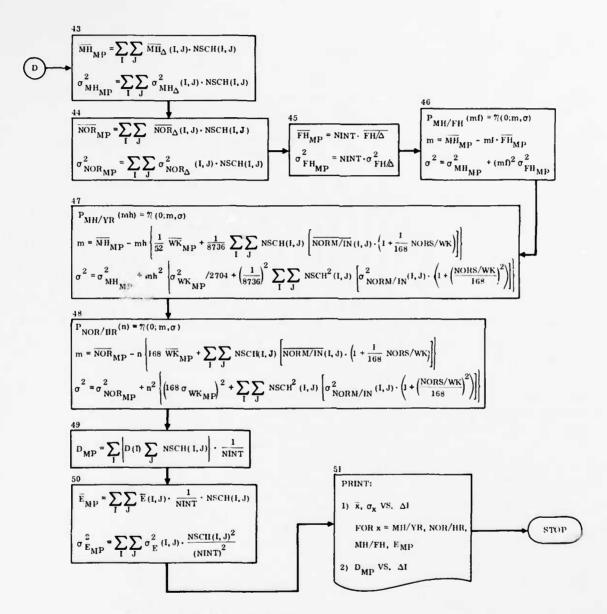


Figure 5-2. Detailed Effectiveness Model (Sheet 4)

- EMHI(I, J) The mean manhours for inspection package Type J when it follows inspection package Type I in Block 2.
- AN(I, J), BN(I, J) The eoefficients of the linear regression function in Block 2 for the NORM hours in inspection package J versus time after the preceding inspection package I. That is, $\overline{\text{NORM}}/\text{IN}(I, J) = AN(I, J) + BN(I, J) \cdot (t)_{after\ I}$
- SMHI(I, J) The standard deviation of the manhours per inspection package J following inspection package I.
- SNI(I, J) The standard deviation of the NORM hours in inspection package J following inspection package I.
- NI The number of values of $\Delta I(DELI)$ to be used in the parametric evaluation.

Each pair of values I and J identifies a different type of inspection interval. The total number (NINT) of inspection intervals is then given by:

$$NINT = \sum_{I=1}^{NSCT} \sum_{J=1}^{NFOL(I)} NSCH(I, J),$$

and the length of the maintenance program period not counting inspection flow times is:

NINT · AI.

The linear regression function for NORM hours per inspection package is input for inspection packages retained from the current program. For new inspection packages, the network analysis model (NAM) provides the needed data.

Special inspections are described by the following parameters included in Blocks 1 and 2 of Figure 5-2.

NSPT	Number of	different	types of	special	inspections.

inspections, ΔI_{SP} .

KIS = 1 or 2 for time in weeks or flight hours respectively

(Block 1).

EMHS, SMHS The mean and standard deviation,
$$\overline{\text{MH}}/\overline{\text{SP}}(1)$$
 and $\sigma_{\overline{\text{MH}}/\overline{\text{SP}}}(1)$,

in Block 2 of manhours in Ith special inspection,

ENS, SNS The mean and standard deviation, NORM/SP(1) and σ NORM/SP(1),

of the NORM hours per special inspection.

The preflight and basic postflight inspections are defined by the following parameters input in Blocks 1 and 2.

R	The ratio of the number of preflight inspections to basic post-
	flight inspections.

EMHP, SMHP The mean and standard deviation, MH/PF and
$$\sigma_{MH/PF}$$
, in Block 2 of the manhours per preflight inspection.

EMHB, SMHB The mean and standard deviation, MH/BPO and
$$\sigma_{\rm MH/BPO}$$
, in Block 2 of the manhours per basic postflight inspection.

Unscheduled maintenance data can be specified for up to 60 sets of WUCs. The number of sets to be used for a specific run is given by the value of KSET in Block 3. For each set, the following items are required.

емни, ѕмни	The mean and standard deviation, MH/uma and $\sigma_{\rm MH/uma}$, of manhours per unscheduled maintenance action in Block 3.
ENU, SNU	The mean and standard deviation of NORM per unscheduled maintenance action, NORM/uma and $\sigma_{NORM/uma}$, in Block 3.
ANU, BNU	The coefficients of the linear regression function for the number of unscheduled maintenance actions, $\overline{N_{uma}}$, per unit time versus time after the inspection in Block 3: $\overline{N_{uma}} = ANU(I, K) + BNU(I, K)$ (t) after I, for the Kth work unit code set and Ith inspection type.
UMAS	The minimum value for \overline{N}_{uma} .
DIK	Set equal to 1.0 when (t) _{after I} is to be measured from the inspection at the beginning of the interval, and set equal to 3.0 when (t) _{after I} is measured from the inspection at the start of the preceding interval.
ANAB, BNAB	The coefficients of the linear regression function for the number of abort maintenance actions per sortic versus time after inspection package I for the Kth work unit code set in Block 3: $N_{abort} = ANAB(I, K) + BNAB(I, K) \cdot (t)_{after I}$
ENWK	The mean number of NORS hours per week charged to the set.

This input data is obtained from the corresponding data generated by the statistical analyses for all the WUCs included in the set. This is accomplished by a simple summation process except for manhours and NORM hours per maintenance action. These are obtained from:

EMHU(K) =
$$\sum_{i=1}^{N} n_i (\overline{MH/uma})_i / \sum_{i=1}^{N} n_i$$

where

n_i is the number of unscheduled maintenance actions per unit time on WUC_i

(MH/uma)_i is the mean number of manhours per unscheduled maintenance action on WUC i

N is the number of WUCs in set K.

and

$$ENU(K) = \sum_{i=1}^{N} n_i (\overline{NORM/uma})_i / \sum_{i=1}^{n} n_i$$

where

(NORM/uma); is the mean number of NORM hours per unscheduled maintenance action on WUC i.

The standard deviations for manhours and NORM per unscheduled maintenance action are given by:

$$\text{SMHS(K)} = \sum_{i=1}^{N} \left\{ n_i \left[\left(\sigma_{\text{MH/uma}} \right)_i^2 + \left(\left(\overline{\text{MH/uma}} \right)_i - \text{EMHU(K)} \right)^2 \right] \right\} / \sum_{i=1}^{N} n_i$$

and

$$SNS(K) = \sum_{i=1}^{N} \left\{ n_i \left[\left(\sigma_{NORM/uma} \right)_i^2 + \left(\overline{NORM/uma} \right)_i - ENU(K) \right)^2 \right] \right\} \sum_{i=1}^{N} n_i$$

where

$$(\sigma_{\mathrm{MH/uma}})_{i}^{}$$
 and $(\sigma_{\mathrm{NORM/uma}})_{i}^{}$ are the standard deviations for WUC $_{i}$.

The values of n_i for the current maintenance program are the numbers of unscheduled maintenance actions encountered in the data bank. The unscheduled manhour and NORM data for each WUC are obtained from the statistical analysis of MH and NORM hours per maintenance action.

Utilization is specified by the following parameters in Block 4:

EFHW, SFHW The mean and standard deviation of flight hours per week, $\overline{FH/WK}$ and $\sigma_{FH/WK}$.

ESOW, SSOW The mean and standard deviation of sorties per week, SOR/WK and o SOR/WK

ELDW, SLDW The mean and standard deviation of landings per week, $\overline{\text{LDG/WK}}$ and σ $_{\text{LDG/WK}}$.

AIES The number of accidents, incidents, and EUMRs per sortie, NAIE/SOR.

The appropriate values for the current program can be obtained from the analysis of the effect of time after an inspection. Each of these utilization variables is correlated with time after a periodic inspection. The values obtained from the regression lines at a time approximately half-way between periodics can be taken as mean values independent of time. The corresponding standard deviation is the standard deviation of the regression obtained from the regression analysis.

At point A in Figure 5-2 (Sheet 2), the distribution $P_{WK/\Delta}$ for ΔI in weeks is derived for the cases in which the time base for ΔI is flight hours, sorties, or landings. For ΔI input in flying hours, for example:

$$p_{WK/\Delta}$$
 (C) = Pr {No, wks $\epsilon \Delta I \leq C$ }

The distribution of flight hours per week is taken to be given by an Erlang distribution; hence, for Block 14 in Figure 5-2:

$$P_{W}(C) = \frac{\lambda \Delta I}{C^{2}} e^{-\left(\frac{\lambda \Delta I}{C}\right)} \left[\frac{(\lambda \Delta I/C)^{k-1}}{(k-1)}\right] ,$$

where

$$\lambda = \overline{FH/WK}/\sigma_{FH/WK}^2$$

and

$$k = \lambda \cdot \overline{FH/WK}$$
 are obtained in Block 13.

Here [a] indicates the greatest integer less than a. Values for p are actually calculated for k and k+1. The final result is found by interpolating between these results. This same procedure is used for all Erlang distribution calculations in the model.

The same distribution is used when ΔI is in sorties or landings, with λ and k being calculated in Blocks 17a or 17b.

To determine the number of basic postflights and preflights, the number of sorties in ΔI must be determined. For ΔI in flying hours or landings, $P_{WK/\!\!\Delta}$ is first obtained as above and the distribution for the number of sorties in ΔI is calculated in Block 15.

Taking both flight hours per week and sorties per week to have Erlang distribution, one obtains

$$\begin{split} & \mathrm{P_{SOR}/\Delta}(s) = \mathrm{Pr} \left\{ \mathrm{No. \ sorties} \ \epsilon \ \Delta \mathrm{I} \le s \right\} \\ & = 1 - \left\{ \frac{\Delta \mathrm{I}\lambda_2}{\Delta \mathrm{I}\lambda_2 + s\lambda_1} \right\}^{k_2} \sum_{j=0}^{k_1-1} \left\{ \left[\frac{\lambda_1 \, s}{\Delta \, \mathrm{I}\lambda_2 + s\lambda_1} \right]^{j} \quad \frac{(k_2 \, ^+j-1)\,!}{j\,! \ (k_2 \, ^-1)\,!} \right\} \end{split}$$

where
$$\lambda_1 = \overline{SOR/WK}/\sigma_{SOR/WK}^2$$

$$k_1 = \left[\lambda_1 \cdot \overline{SOR/WK}\right]$$

$$\lambda_2 = \overline{FH/WK}/\sigma_{FH/WK}^2$$

$$k_2 = \left[\lambda_2 \cdot \overline{FH/WK}\right]$$

If ΔI is in weeks to begin with, then the calculation is simply that of Blocks 5 and 6. The mean and standard deviations of the distribution for the number of basic postflights and preflights are then calculated in Blocks 7 and 8. The mean and standard deviations of the total number of weeks in the maintenance program period are then calculated in Block 10.

Distributions for the number of preflight and basic postflight manhours in ΔI are calculated in Block 11. The variance in this case is that of the sum of a variable number of terms and is obtained as follows.

For some variable Z defined to be:

$$Z \equiv x_1 + x_2 + \dots + x_n$$

Where x_i and n both are stochastic variables with x_i identically distributed, then Z has the probability distribution:

$$p_{Z}(u) = \sum_{N=1}^{\infty} p_{N}(n) p^{*n}(u)$$

where $p_N(n)$ is the probability distribution for n and p^{*n} is the nth-fold convolution of p(x), with $E(x) = \bar{x}$ and $Var(x) = \sigma^2$.

Then

$$\overline{Z} = E(Z) = \overline{n} \cdot \overline{x}$$

and

$$Var(Z) = \int_{0}^{\infty} (u - \overline{Z})^{2} p_{Z}(u) du$$

$$= \int_{0}^{\infty} (u - \overline{Z})^{2} \sum_{n} p_{N}(n) p^{*n}(u) du$$

$$= \sum_{n} p_{N}(n) \int_{0}^{\infty} (u - \overline{Z})^{2} p^{*n}(u) du$$

$$= \sum_{n} p_{N}(n) E(u - \overline{Z})^{2} = \sum_{n} p_{N}(n) E(u - n\overline{x} + n\overline{x} - \overline{Z})^{2}$$

$$= \sum_{n} p_{N}(n) E(u - \overline{u} + a)^{2}$$

where:

$$a = n\bar{x} - \bar{Z}$$
, and $\bar{u} = n\bar{x}$

Since:

$$(u - \bar{u} + a)^2 = (u - \bar{u})^2 + 2a(u - \bar{u}) + a^2$$

we have:

$$E(u-\overline{u}+a)^2 = E(u-\overline{u})^2 + 2a E(u-\overline{u}) + a^2$$

= $Var(u) + a^2$

Hence:

$$\begin{aligned} \operatorname{Var}(Z) &= \sum_{\mathbf{n}} \ \operatorname{p}_{\mathbf{N}}(\mathbf{n}) \left[\operatorname{Var} \left(\sum_{\mathbf{n}} \ \mathbf{x}_{\mathbf{i}} \right) + (\mathbf{n} \, \overline{\mathbf{x}} - \overline{\mathbf{Z}})^{2} \right] \\ &= \sum_{\mathbf{n}} \ \operatorname{p}_{\mathbf{N}}(\mathbf{n}) \left[\mathbf{n} \, \sigma^{2} + (\mathbf{n} \overline{\mathbf{x}} - \overline{\mathbf{n}} \overline{\mathbf{x}})^{2} \right] \end{aligned}$$

This reduces to:

$$Var(Z) = \bar{n} \sigma^2 + \sigma_n^2 \bar{x}^2$$

Applying this result in Block 11, the equations are as shown there for the variance of preflight and basic postflight manhours in ΔI . This result is also used in Block 12 when the mean and variance of flight hours in ΔI are computed.

At Point B in Figure 5-2 (Sheet 2), the distributions of special inspection manhours and NORM hours in ΔI are derived.

The first step at Block 19 is to obtain the distribution $P\Delta I_{SW}$ for the special inspection interval ΔI_{SW} in weeks if the interval is specified in flying hours instead.

Using Erlang distributions for flight hours per week and the special inspection interval in flying hours, the distribution for the interval in weeks is given by the equation in Block 19b:

$$P_{\Delta I_{\text{SW}}}(C) = (\lambda_{\text{SP}} \ C)^{k_{\text{SP}}} \sum_{j=0}^{k_{\text{FW}}-1} (k_{\text{SP}} + j - 1)! / \left[(j!)(k_{\text{SP}} - 1)! \ (\lambda_{\text{FW}} + \lambda_{\text{SP}} C) \right]^{k_{\text{SP}} + j}$$

where $\lambda_{\,\mathrm{SP}},\ k_{\,\mathrm{SP}},\ \lambda_{\,\mathrm{FW}},\ \text{and}\ k_{\,\mathrm{FW}}$ are given by Block 19a:

$$\lambda_{SP} = \overline{\Delta I_{SP}} (I) / \sigma_{\Delta I_{SP}}^{2} (I)$$

$$k_{SP} = \lambda_{SP} \cdot \overline{\Delta I}_{SP} (I)$$

$$\lambda_{FW} = \overline{FH/WK} / \sigma_{FH/WK}^{2}$$

$$k_{FW} = \lambda_{FW} \cdot \overline{FH/WK}$$

The next step is to determine the distribution for the number of special inspections of Type I in ΔI , the inspection interval, in Block 22 of Figure 5-2. This distribution is derived as follows.

$$P_{NSPC}(n) = Pr \{No. \text{ inspections in } \Delta I = n\}$$

= $Pr \{No. \text{ inspections in } \Delta I < n+1\} - Pr \{No. \text{ inspections in } \Delta I < n\}$

The two probability distributions on the right are derived by determining the probability that the total time for n or n+1 inspections exceeds ΔI ; that is:

Pr {No. inspections in
$$\Delta I < n$$
} = $\sum_{C} \Pr \left\{ \sum_{I=1}^{n} \Delta I_{SW}(I) > C \right\}$. Pr { $\Delta I = C$ } = $\sum_{C} \left[1 - \Pr \left\{ \sum_{I=1}^{n} \Delta I_{SW}(I) \le C \right\} \right] \Pr \left\{ \Delta I = C \right\}$

5-16

The first distribution on the right is the n-fold convolution of the distribution for $\Delta I_{SW}(I)$ which, as above, can be assumed normal. The second distribution on the right above is obtained from $p_{WK/\Delta}$. Hence:

$$\Pr \left\{ \text{No. inspections in } \Delta I < n \right\} = \sum_{C} \left[1 - \eta \left(C; \, \overline{n \Delta I_{SW}}, \sqrt{n} \, \sigma_{\Delta I_{SW}} \right) \right] p_{WK/\Delta} \left(C \right)$$

Consequently, the distribution for the number of Type I special inspections in ΔI is:

$$\begin{aligned} \mathbf{P}_{\mathrm{NSPC}}(\mathbf{n}) &= \sum_{\mathbf{C}} \left[\mathcal{N}(\mathbf{C}; \mathbf{n} \, \overline{\Delta \mathbf{I}_{\mathrm{SW}}}, \, \sqrt{\mathbf{n}} \, \sigma_{\Delta \mathbf{I}_{\mathrm{SW}}}) - \mathcal{N}(\mathbf{C}; (\mathbf{n+1}) \, \overline{\Delta \mathbf{I}_{\mathrm{SW}}}, \, \sqrt{\mathbf{n+1}} \, \sigma_{\Delta \mathbf{I}_{\mathrm{SW}}}) \right] \\ & \cdot \mathbf{p}_{\mathrm{WK}/\Delta}(\mathbf{C}) \end{aligned}$$

The means and variances for manhours and NORM hours for special inspections of Type I in Δ I are calculated in Blocks 23 and 24.

After these calculations are completed for each type of special inspection, the distributions for the total manhours and NORM hours in all special inspections are calculated in Blocks 21 and 25. This completes the evaluation of the special inspections.

At Point C in Figure 5-2 (Sheet 3), the NORS hours-per-week rates for the WUC sets are summed to obtain an aircraft-level rate.

The next step is to calculate unscheduled maintenance manhours and NORM hours in ΔI . Starting at Block 30, the expected number of unscheduled maintenance actions in ΔI for WUC set K is calculated from the unscheduled maintenance action frequency $N_{uma/TM}(I,K,TM)$. The expected number and variance of manhours and NORM hours in ΔI are given by equations similar to those used for preflight and basic postflight manhours. That is, Block 34 gives:

$$\overline{MH}_{uma}(I, K, \Delta I) = \overline{MH}/uma(K) \cdot \overline{N}_{uma}(I, K, \Delta I)$$

For the variance, the equation is somewhat simplified, since the mean and variance of the number of unscheduled maintenance actions are equal. Hence:

$$\sigma_{\mathrm{MH}_{\mathrm{uma}}}^{2}(\mathrm{I},\mathrm{K},\Delta\mathrm{I}) = \overline{\mathrm{N}}_{\mathrm{uma}}(\mathrm{I},\mathrm{K},\Delta\mathrm{I}) \left[\sigma_{\mathrm{MH}/\mathrm{uma}}^{2}(\mathrm{K}) + \left(\overline{\mathrm{MH}}/\mathrm{uma}(\mathrm{K})\right)^{2}\right]$$

In Block 37, similar equations for unscheduled NORM hours are used.

In Blocks 31 and 33, the distributions for total unscheduled manhours and NORM hours in ΔI are calculated by summing over the WUC sets.

The aborts-per-sortie rate at the aircraft level is calculated in Block 35 as a function of time (TM) after inspection package Type I by summing the WUC set rates. Then the average rate in ΔI is calculated in Block 38.

In Block 39, an aircraft "failures" per sortie rate is calculated by combining the abort and AIE rates. From this rate, the dependability D(I) following inspection package Type I is calculated as the probability that a "failure" does not occur in the sortie:

$$D(I) = \exp \{-FAIL/SOR(I)\}$$

In Block 42, the distribution of total manhours in an inspection interval for consecutive inspection package Types I and J is calculated by adding the means and variances of manhours for unscheduled maintenance, special inspections, preflight and postflight inspections, and inspection package manhours.

The distribution of total NORM hours in an I, J interval is calculated similarly in Block 40. The derivation of the distribution of total NOR hours in ΔI is somewhat more complicated in that NORS depends on the total calendar time for the interval. So, in the equation for NOR/ Δ (I, J) in Block 36, the total of weeks per ΔI and elapsed time for the inspection package is multiplied by the NORS/WK rate for the aircraft.

The distribution for the total calendar time in the interval, calculated in Block 32, is similar in that the NORS hours accumulated during the inspection provide an additional term in the equations for CT and $\sigma^2_{\rm CT}$.

In Blocks 28 and 29, the distribution for availability is calculated in a manner similar to that used in Block 19 for the special inspections. Thus:

$$P_{A_{V}}(a) = \frac{\lambda_{C}^{k_{C}}}{(k_{C}-1)!} \sum_{j=0}^{k_{N}-1} \left[\frac{(\lambda_{N}(1-a))^{j}}{(\lambda_{N}(1-a)+\lambda_{C})^{k_{C}+j}} \cdot \frac{(k_{C}+j-1)!}{j! (k_{C}-1)!} \right]$$

The distribution for effectiveness, E, is easily obtained from this result, since:

$$\mathbf{E} = \mathbf{A}_{\mathbf{v}} \cdot \mathbf{D}(\mathbf{I})$$

and D(I) is not a stochastic variable. Therefore, in Block 26:

$$\begin{split} \mathbf{P}_{\mathbf{E}}(\mathbf{e},\mathbf{I},\mathbf{J}) &= \mathbf{Pr} \left\{ \mathbf{E} \leq \mathbf{e} \right\} = \mathbf{Pr} \left\{ \mathbf{A}_{\mathbf{V}} \cdot \mathbf{D}(\mathbf{I}) \leq \mathbf{e} \right\} \\ &= \mathbf{Pr} \left\{ \mathbf{A}_{\mathbf{V}} \leq \mathbf{e} / \mathbf{D}(\mathbf{I}) \right\} = \mathbf{P}_{\mathbf{A}_{\mathbf{V}}} \left(\frac{\mathbf{e}}{\mathbf{D}(\mathbf{I})}, \mathbf{I}, \mathbf{J} \right) \end{split}$$

At Point D in Figure 5-2 (Sheet 4), the calculations described above are completed for all I, J values and results for the maintenance program period are obtained.

In Block 43, the distribution for the total manhours in M.P. is calculated by summing the means and variances of the manhours in ΔI over all I and J.

The derivation of the distributions for manhours per year and flight hour and for NOR/HR in the maintenance program period is complicated by the need to add in the elapsed time for NORM and NORS to obtain the total calendar time. If these totals are represented by CT/MP in Blocks 46, 47, and 48, then the distributions are obtained as follows. In Block 47:

$$P_{MH/YR}(mh) = Pr \{MH/YR \le mh\} = Pr \left\{ \frac{MH/MP}{CT/MP} \le mh \right\}$$
$$= Pr \{MH/MP - (mh)(CT/MP) \le 0\}$$

The mean and variance of the expression in the brackets are

$$m = \overline{MH/MP} - (mh) \overline{CT/MP}$$

$$\sigma^2 = \sigma^2_{MH/MP} + (mh)^2 \sigma^2_{CT/MP}$$

and the result is given by the cumulative normal:

$$P_{MH/YR}(mh) = \eta$$
 (o;m, σ)

The distributions for MH/FH and NOR/HR in Blocks 46 and 48 are obtained similarly.

In Blocks 49 and 50, dependability and effectiveness of M.P. as functions of ΔI are calculated as time averages over the maintenance program period. As the last step in the program, the maintenance program parameters are output in Block 51.

A sample input data deck listing for the effectiveness model run is shown in Figure 5-3.

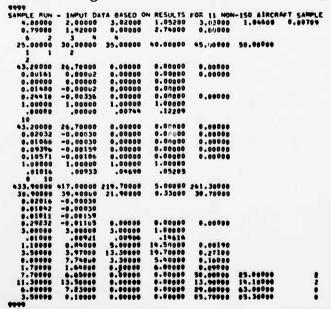


Figure 5-3. Sample Data - Effectiveness Model

5.2.4 OUTPUT DESCRIPTION. As a result of the evaluation process, the impact of the maintenance program alternative is described by basically two measures: effectiveness and direct organizational manhours as functions of the length of the interval, ΔI , between consecutive inspection packages. Typically, these functions are as shown in Figure 5-4.

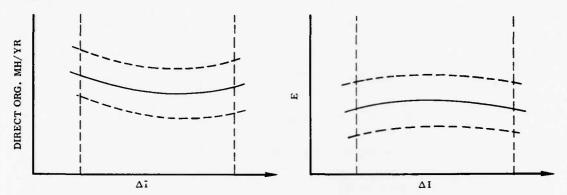


Figure 5-4. Typical Effectiveness Model Outputs

The solid-line curves are mean values of the functions; statistical variation in the function is indicated by dashed lines. The interval of variation of ΔI is constrained by data variability and by maintainability characteristics of the aircraft. These functions make it possible to select a ΔI interval that most probably maximizes effectiveness and minimizes cost within the constraints imposed.

A sample output is shown in Figure 5-5 for a run requiring six minutes on the IBM 370.

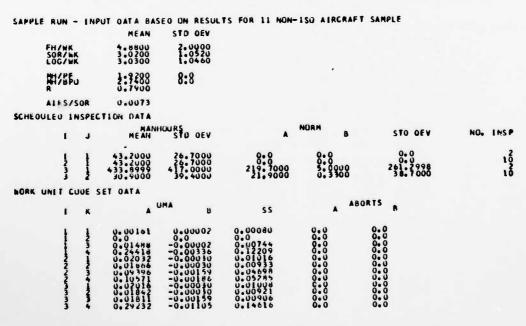


Figure 5-5. Sample Output - Effectiveness Model (Sheet 1)

		ĸ	MEAN	H/UMSTO DEV	H	FANORM	STB OEV	NORS/WK		
		234	1.1000 3.5000 6.2000 1.7000	0.8400 3.9700 7.7400 1.6400	5.0 13.3 3.3 2.6	000	14.5000 19.7000 5.4000 6.8000	0.0019 0.2710 0.1600 0.0980		
SPEC	IAL INS	PECTI	ATAO NU							
		J	ME AN	NHOURS STO DEV	H	NOR IE AN	STO DEV	MEAN	STO OFV	K15
		234	7.7000 11.3000 6.8000 3.5000	13.5200 7.2300 9.1000	0.0		0.0 0.0 0.0	50.0000 13.9000 29.8000 25.7000	25.8000 14.1000 63.8000 25.3000	277
	RVAL RE									
	WEEKS				MEAN	STU 3	OFY			
			MANHOURS FLIGHT MA		31:32		: 83			
			EETISM NO		23:66	18	38			
	NO. C		CHED. ACT	LONS	4.42					
	i :	2 3			4.42 3.43 4.26					
	UNSCH	EO. M	ANHUURS							
	1:	3			9.81 14.96 8.93	13	- 26 - 75 - 40			
	I =	ikD. N	OKM		8.43		. 40			
	1 .	123	••••		13.06	13	• 60			
	1:	3			13.66	17	17			
	TOTAL	MANH	OURS		148.51	67	. 05			
	I:	23	j .	j	168.51 173.66 558.33 155.33	420	• 05 • 10 • 02			
	Î = Total	3 NOR	J =	2	155.33	6.3	. 88			
	1 -		. و	1	15.94	13	.69			
	1:	3	, <u>.</u>	}	15.94 17.21 363.47 47.73	26	. 24 . 99 . 10			
	-	TIVEN	ESS	-						
	1:	3	3 :	1	0.98613	0.0	734			
		3	j :	ļ	0.98613 0.98105 0.71247 0.95489	0.2	220 1635			
	DEPLA	OABIL	ITY							
	1:	3			0.99274 0.99274 0.99274					
LATE	RVAL -				0.77214					
	WEEKS				9E 23	STD	OEY			
			HANHOVAS FLYGHY NA		28:33		:39			
			eefian na		38:85	"	3:85			
		F UNS	CHEO. ACT	IONS	4.80					
	1:	2,			3:28					
	UNSCH	E0. M	ANHOURS							
		3			10.90	1	. 67 . 63 . 19			
		EO. N	URM		.0,76					
	1:	1			13.79	15	.29 .64 .54			
	1000				16.12	21	1.54			
		MANH		1	190-05	A:	3.64			
		2) :) :	1	190.05 194.79 580.78 177.78	42	3.64 1.56 1.97			
		,	J =	2	1//./8	6.				

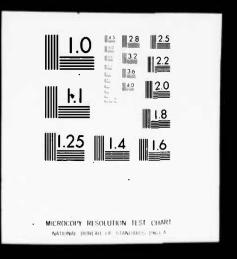
Figure 5-5. Sample Output - Effectiveness Model (Sheet 2)

1 - 1 1 - 1 17.72	14 65
1 17.77 1 1 10.57 1 392.91 53.95	10.41 19.74 262.20 44.34
EFFECTIVENESS	2455
•	0.02455 0.03034 0.23455 0.06848
DEPENDABILITY	
0.99274 U.99274 0.99274	
INTERVAL = 35.	TO DEW
	TD DEN
BREEL POST PROTOTY RANHOURS 98:88	£8:88
SPEE: INSPECTION MANHOURS 36.87 NO. OF UNSCHED. ACTIONS	38:84
5.01 1 = 2 1 = 3	
UNSCHED. MANHOURS	C. 38
1 11.69 18.16 12.81	15.14 E.86
UNSCHED. NORM 1 = 1 14.45	16.69
1 • 1 1 • 2 1 • 3	16.69 20.83 23.55
TOTAL MANHOURS	70.42
1	70.42 71.41 422.05 16.06
TOTAL NOR	
1	16.85 20.96 262.37 45,36
i = 3 j = 2 59.56 Effectiveness	45,36
	.03171
1 2 J 1 0.98874 0 0.98674 0 1 3 J 2 0.96216 0	02171 02579 21913 06136
UE PE ND ABILITY	
0.99274 0.99274 0.99274	
INTERVAL = 4U.	10 054
	10 50 EX
BASELI BUST PAYCHY MANHOURS 89:68	33:34
SPEE: INSPEETION NORMOURS 43:36	38:80
1 = 1 1 = 2 1 = 3	
I = 3 6.98 UNSCHED. MANHOURS	
	9.95
1 = 1 1 = 2 1 = 3	9. 95 16. [9 9. 48
UNSCHED, NURM	17.60
	23:27
TOTAL MANHOURS	
	17:35 16:39 423:36

Figure 5-5. Sample Output - Effectiveness Model (Sheet 3)

GENERAL DYNAMICS SAN DIEGO CALIF CONVAIR AEROSPACE DIV F/G : F-106 SCHEDULED MAINTENANCE STUDY. USER'S MANUAL, (U) SEP 72 G WANG, R S GROTE, J R COOPER F41608-71-D-1383 AD-A045 625 F/G 1/5 UNCLASSIFIED GDCA-AHD72-006 NL 3 of 6 ADA045825

3 of 6 ADA045625



TUT	AL NUR				
	3 3		į	21.26 24.36 450.75 64.93	17.79 22.52 262.52 46.24
EFF	EC71VEN	ESS			
	3 3	11:	Ì	0.98866 0.98686 0.75858 0.96539	0.02026 0.02529 0.20190 0.05524
	ENOABIL	TY			
	3			0.99274 0.99274 0.99274	
INTERVAL	± 45.				
WEE	KS			11.11	570 DEY
PRE	FLIGHTT	ANHOURS	ANHUURS	\$7:99	38:88
	E: INSPI			48:8 ²	42:84
				6.24 5.37 7.85	
1				7.85	
	CHED. M	ANHOURS		14.62	10.53
	} 3			23.35 16.47	10.53 17.17 10.05
	CHED. NI	JRM		10.03	
	3			18.02 21.51 27.54	18.68 23.62 26.70
101	AL MANH	JUKS			
	33	,	1 2	255.69 264.42 648.24 245.24	84.30 65.44 424.60 89.14
្រែ -	AL NUR				
	3	11:	ļ	23.92 27.40 479.54 70.30	18.92 23.81 267.68 47.11
	LC (IVEN			D. WHAUS	n. n1c24
		1:	ž	0.98795 0.98706 0.96725	0.01424 0.02445 0.19273 0.05240
	ENGABIL	111		0.99274	
INTERVAL				0.99274 0.99274 0.99274	
WEE	KS			MEAN 12.34	STD DEY
	EF1883-1	HANHOURS	ANUINA	187:32	28:38
	E: INSBI			53:52	42:86
NO.			T I UNS	0.0	C. O
	· ·			6.93 5.97 8.73	
•	-			6.73	
UNS		ANHIJURS		16.21	11.07
1:	2			16.21 25.95 18.30	10.10
UNS		DAM		20.0	
	23			20.04 23.90 30.60	19.71 24.90 26.14
TOT		DURS			
	23	1 :		278.01 287.74 670.80 267.80	92.53 426.05 95.84
1:	3	j:	2	267.80	95.84

Figure 5-5. Sample Output - Effectiveness Model (Sheet 4)

TOTAL	NUR										
1:	3		:	1	26.59 30.45 504.34 75.67	15.99 25.12 262.83 47.97					
EFFEC	TIVE	NESS									
!:	1233			1	0.98925 0.98737 0.77680 0.96882	0.01872 0.02348 0.18259 0.04563					
DEPEN	DAUL	LITY									
1	3				0.99274 0.99274 0.99274						
ENANCE	PRU	GRAM	KES	ULTS							
TERVAL	KSI	M	ANI	URSZYE AR	MANINURS/FL	GHT HOUR	NOR HO	UN SZHOUR STO DEV	EFFECTI	VENESS DEV	DEPENDABIL ITY
25. 30. 35. 40. 45. 50.		181 170 164 156 146	7.	463. 410. 381. 359. 342. 327.	8. 7. 7. 7. 6.	2.	0.0812 0.0762 0.0776 0.0697 0.6672 0.0649	0.0297 0.0273 0.0258 0.0248 0.0239 0.0229	0.9452 0.9531 0.9550 0.9590 0.9608 0.9622	0.0414 0.03169 0.0313 0.0304 0.0290 0.0275	0.9927 0.9927 0.9927 0.9927 0.9927 0.9927
	EFFEC DEPEN ENANCE TEN YAL	DEPENDABLE STENANCE PRUME TENANCE PRUME TENA	EFFECTIVENESS DEPENDABILITY BENANCE PROGRAM TENANCE PROGRAM TENANCE PROGRAM	EFFECTIVENESS EFFECTIVENESS DEPENDABILITY ENANCE PRUGRAM RES TEM YALL HE HAULS) MANHUMFANUMFANUMFANUMFANUMFANUMFANUMFANUMFAN	EFFECTIVENESS EFFECTIVENESS DEPENDABILITY SHANCE PRUGRAM RESULTS TEM YALLAS MANMOURS (YEAR MEAN STO DEV	- 2 -	-	-			-

Figure 5-5. Sample Output - Effectiveness Model (Sheet 5)

5.3 NETWORK ANALYSIS MODEL

- 5.3.1 PURPOSE. NORM hours and maintenance manhours expended in scheduled inspections are calculated by a supporting submodel, the network analysis model (NAM). This is accomplished by developing a network description of the series and parallel organization of the various inspection tasks included in the inspection package. The model then calculates the total manhours involved and the distributions of flow time across the network.
- 5.3.2 INPUT DATA AND PROCEDURES. The flow chart in Figure 5-6 describes the network analysis process. Three types of input data are read from cards. The first consists of the empirical look-phase manhours and inspection package NORM hours in Step 1 of the block diagram. This data is input for existing inspection packages only. In Step 2, the branch data is read in. This data includes the probability distributions for branch manhours and the span time to manhour ratios, FHR. The third set of input data in Step 3 defines the network structure.

The card deck is composed of nine card sets with the following formats.

- Set 1 One title card (80 characters printed as a heading)
- Set 2 One card with three integers:

Columns 1 and 2 - The number of network branches

Columns 3 and 4 - The number of points in the empirical NORM distribution

Columns 5 and 6 - The number of points in the empirical manhour distribution

Set 3 As many cards as required to specify the NORM and probability values for all points in the empirical NORM distribution, 10 columns per value.

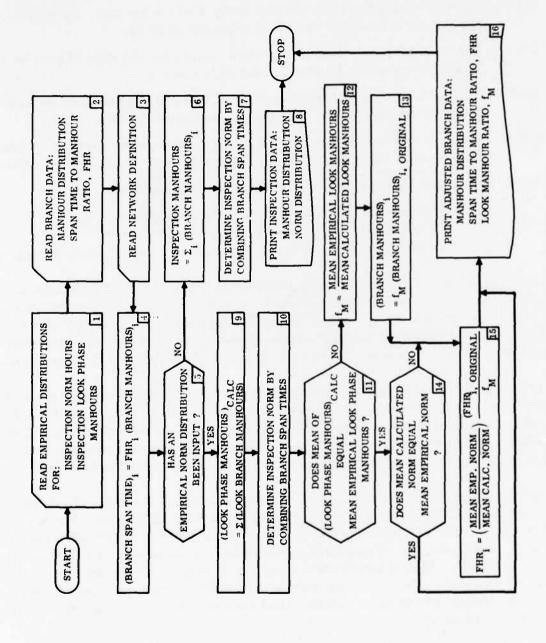


Figure 5-6. Network Analysis Model

- Set 4 As many cards as required to specify the manhours and probability values for all points in the empirical manhour distribution, 10 columns per value.
- Set 5 One card for each 40 branches or lines, with a 0 for each look branch and a 2 for each repair branch, 2 columns per value.
- Set 6 One card for each 8 branches or lines, containing the ratio of span time to manhours for each branch, fields of 10 columns.
- Set 7 One card for each 40 branches or lines, with the number of points used to define branch manhour distribution, in 2-column fields.
- Set 8 As many cards as required to specify the manhours and probability values for all points in the branch manhour distributions, 10 columns per value.
- Set 9 One card for each step in the network reduction process:

Columns 1 and 2 - The number of the first branch.

Columns 3 and 4 - The number of the second branch.

Column 6 - A zero for parallel branches; a 1 for series branches.

If an existing inspection package is being evaluated to scale inspection task manhours and man times, a "Yes" exit is taken at Step 5. If previously adjusted data is being used to predict flowtime and manhours for a new inspection package, a "No" exit is taken at Step 5 and inspection package manhours are accumulated at Step 6, followed by application of NAM to reduce the network at Step 7 to calculate the package flow time.

The reduction of sets of branches to equivalent branches involves the application of two different mathematical techniques. For two branches in series, the probability distribution for the total span time is the distribution for the sum of the span times. This distribution is obtained as the convolution of the individual distributions. For branches in parallel, the span time is the distribution for the maximum over the branches.

Inspection task manhours and span times are scaled in Steps 9 through 15 by calculating inspection package manhours in Step 9, reducing the network by using NAM to calculate the flow time in Step 10, and comparing calculated manhours with empirical manhours in Step 11. The ratio, $f_{\rm M}$, of empirical look manhours to calculated look manhours is adjusted in Step 12. Branch manhours are adjusted in Step 13. When package manhour equality is achieved in Step 11, calculated package NORM hours are compared with empirically derived NORM hours in Step 14 and the spantime-to-manhour ratio, FHR, is calculated in Step 15.

When equality between empirically derived inspection package flow time and calculated flow time is achieved, the analysis of the inspection package is complete. At this point, NAM outputs the final values of the ratios f_M and FHR so that the adjusted values of task manhours and span times are available for evaluation of a new inspection package.

A listing of a sample data deck is shown in Figure 5-7.

```
2 0-2 0
10
2 4 2
                         4.2
4.2
.8
                                 1.
6.
1.
                                                 .75
                                        .1.
                                                         1.
                 •4
                         •4
                                 .8
                                         1.
                                         2.0
                         .9
                                 1.4
                 .5
                 .2
                         •4
1•
                 .7
                         .9
1.
                         .5
                 .4
1.
                                 1.
                                                 1.
                                                         1.
1.
                         1.
```

Figure 5-7. Sample Data - Network Analysis Model

5.3.3 OUTPUT DESCRIPTION. Output includes the calculated inspection NORM and manhour distributions, the mean and standard deviations of these distributions, and the corresponding empirical distributions. Primary output consists of revised branch manhour distributions and revised span-time-to-manhour ratios for all branches.

A sample output is shown in Figure 5-8 for a run requiring about one minute on the IBM 370.

	SAMPLE C	ASE 1								
	INPUT OAT	TA .								
	EMPIRICAL	LINSPECTIO	N NORM							
T -	0.0	3.00	4.00	4.20	6.00					
P =	0.0	0.10	0.50	0.80	1.00					
	EMPIRICAL	L INSPECTIO	N MANHOURS							
T =	0.0	3.00	4.00	4.20	6.00					
P =	0.0	0.10	0.50	0.80	1.00					
	BRANCH DA	ATA								
NBR =	11	2	9	2	0	2	0	2	0	2
FHR =		1.00	1.00	1.00	0.50	1.00	0.75	1.00	0.33	1.00
	1:88						••••		0	
	BRANCH MA	ANHOURS AND		S						
	, J) =	0.0	0.50							
	- 1L,	0.0	1.00							
	.J) =	0.0	0.20	0.40	0.60	0.80	1.00			
	,JI =	0.0	0.20	0.40	0.60	0.80	1.00			
	,J1 =	0.0	1.00							
	, J1 =	0.0	1.00							
	,11 =	0.0	0.20	0.50	0.90	1.40	2.00			
	, JI =	0.0	0.20	0.40	0.60	0.80	1.00			
	,J1 =	0.0	1.20							
	,J1 =	0.0	1.00							
	.11 =	0.0	0.10	0.20	0.40					
	,J1 =	0.0	0.20	0.80	1.00					
	, J1 =	0.0	0.80							
	J) =	0.0	1.00							
	J) =	0.0	0.50	0.70	0.90					
	J) =	0.0	0.20	0.60	1.00					
	.11 =	0.0	1.50							
	J) =	0.0	1.00							
THHI 10		0.0	0.30	0.40	0.50					
FMHI 10		0.0	0.40	0.80	1.00					
THHI 11		0.0	0.80							
PAHI 11		0.0	1.00							
WE INUKK	OFFINITION			,						
	Ž	7		į						
	Ž	2		ģ						
	é	\$ 16		į						
	12345	37722 1221 159 1051								
	1ó	1 11	ĺ	i						
	CUTPUT DA	TA								
	EMPIRICAL	. INSPECTION	NORM							
MEAN =	4.36	STANDARL	DEVIATIO	N •	0.88					
	EMPIRICAL	. INSPECTION	MANHOURS							
FEAN =	4.36	STANDARI	OEVIATIO	N =	0.88					

Figure 5-8. Sample Output - Network Analysis Model

	CALCULAT	ED INSPECT	ION NORM							
τ •	8:30	₹:38	₹: 28	₹:38	33:5	₹:78	2:18	3:88	\$: 23	5:38
P =	8:21	8:22	8:33	8:33	8:83	8:98	3:16	8:13	8:33	9:67
MEAN .	4.51	STANDA	AD DEVIATI	ON =	0.45					
		BRANCH DA	TA							
FM = FHR =	7.75	1.00	1.29	1.09	0.64	1.00	0.97	1.00	0.42	1.00
	ADJUSTED	BRANCH MA	NHOURS AND	SPAN TIMES	5					
THHE 1.J) •	0.0	0.38							
PPHC 1,J		3.0	1.00							
TMH(2,J		V.0	r. 20	0.40	C.60	0. 80	1.00			
PMH(2,J		ن. ب	C. 2L	J.40	C.60	0.80	1.00			
TMH(3,J		0.0	C.75							
PPH(3,J TPH(4,J		9.0	1.00				2 44			
		9.0	C - 20	U.50	0.90	1.40	2.00			
PMH(4,J TMH(5,J		U.0	₩.29 ₩.90	U.40	C. 60	0.80	1.00			
PMH(5,J		7.0	1.60							
THH(6,J		V.u	v.10	9.20	6.40					
PMH(6,J		v.0	Ų.2U	G.80	1.00					
TMH(7,J		0.3	0.60	****						
PMH(7,J		5.6	1.00							
THH(8,J		0.0	6.50	0.70	C.93					
PHC 8.J) =	0.0	1.20	3.60	1.60		4			
MH(9, J	1 =	5.0	1.13							
PH(9,J) =	0.0	1.00							
PH(16, J) =	4.6	6.30	0.40	C.50					
MH(10, J) =	0.0	₹1.4U	0.80	1.00					
MH(11,J) •	2.0	0.60							
PH(11,J) =	0.0	1.60							
	SAPPLE C	ASE 2								
	INPUT DA									
NBR = LKFX = FHR =	1.30	6	0	0	0	1.08		1.08		
FHR =		1.00	1.00	1.00	1.08	1.00	3.4	1.00		
	BRANCH M		IU SPAN TIM	ES						
	1) •	0.0	1.50							
	J) =	0.0	1.00							
	1) =	U•0	3.00							
	J) *	0.0	1.60					1		
	J) •	0.0	1.00							
	J) = Jl =	0.0	5.40							
		0.0	1.00							
THHI 5.)) -)1 =	0.0	6.00							
)) = or -	0.0	1.40							
	J) *	0.0	3.50							
	1) .	U.0	1.00							
	11 •	U.0	2.00							
	J1 =	0.0	1.60							
	J) =	ú.0	7.00							
	J) •	0.0	1.00							
RETWORK	DEFINITIO	N								
	1 2	2	3	2						
	1234507	3	7268	d						
	5	Ī	2 .	1						
	7	ī	ě	Ğ						

Figure 5-8. Sample Output - Network Analysis Model, Contd

CUTPUT DATA CALCULATED INSPECTION NURM IS.LU 0 = 0.0 1.00 STANCARU DEVIATION = G.0 MEAN . 15 ... 4 CALCULATED INSPECTION MANHOURS 0.0 32.00 0 = Mati 1.00 32.00 STANDARD DEVIATION = C.0 MEAN .

Figure 5-8. Sample Output - Network Analysis Model, Contd

5.4 MANHOUR AND NORM DATA

The objective of this task is to generate for each work unit code (WUC) set, the mean and variance of manhours per unscheduled maintenance action and NORM per unscheduled maintenance action. In addition, the programs compute the mean value of span time for a repair action on each WUC set. The logic flow is shown in Figure 5-9, and the individual programs are listed in Paragraph 6.10.

5.4.1 SUM UNSCHEDULED MAINTENANCE ACTIONS

- 5.4.1.1 Purpose. The purpose of this task is to compute the number of unscheduled maintenance actions, the number of repair actions in hourly postflight inspections, and the number of repair actions in periodic inspections on each WUC by how-malfunction code (HMC).
- 5.4.1.2 Input Data and Procedures. The input consists of the sorted data bank tape and a deck of cards defining the isochronal aircraft group, the when-discovered codes (WDC), and the hourly postflight and periodic inspections.

The card data deck has the following format.

Card	Column	Description
a	3-5	Number of Isochronal Aircraft
b	3-10	Serial Number of Isochronal Aircraft
	13-15	Starting Week Number of Isochronal Inspection
C	5	When-Discovered Codes (WDC)
d	1-3	Number of WDC for Unscheduled Inspections
е	1-3	Position of Each WDC for Unscheduled Inspections
f	1-3	Number of Support General Inspections
g	1-3	Position of WDC Corresponding to Support General Inspection
	6-10	Support General Inspection

A sample input deck, that used for the F-106 Scheduled Maintenance Study, is shown in Figure 5-10.

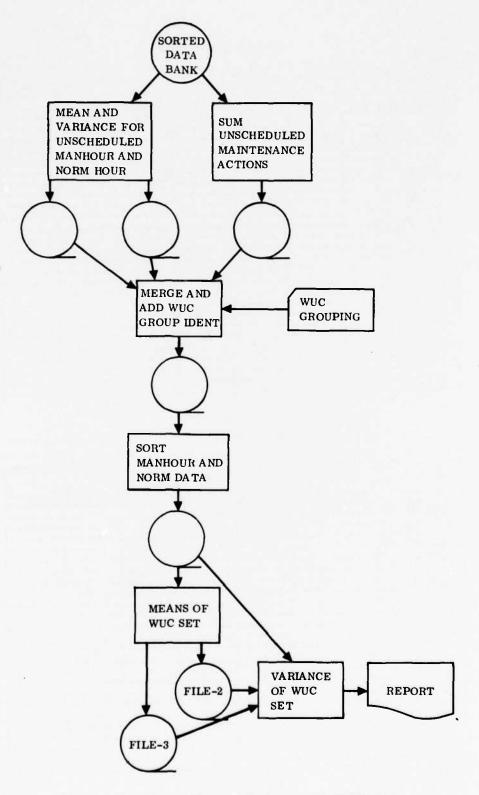


Figure 5-9. Logic Flow - Manhour and NORM Data

IME	6.1	1000	200000	ENGINEER		PMKW		
10		EWO-WAP	FUNCTION	AKALYET		DAYE		
W-1	W-2	W-3	W4	W-5	W 4	#-7	114	
10000000	111111111111111		3 3 3 3 3 3 3 3 3 3 4	112131413141713191	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	77777777	
34								
5,7000236	. 33.1							
57000237	. 331						1	
579902#3	. 3.24						1	
57000244	. 331							
57002545	. 331						T	
58000774	. 324						1	
5,8990,991	. 33.1							
5999990,2	. 331						1	
59,00,0,003	. 33.1							
5,900,000	. 331					····	1	
59900006	. 33.1						1	
5,9,000,01,d	. 33.1						1	
540,00012	. 33.1				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
590,000/5	. 33.1						+	
58,00,0,01.8	. 33.1	111111111	111111111		1111111		1	
59.00.0.01.9	. 33.1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			******		,,,,,,,	
59000026	331	*******			*******	*******	 	
5900003d	. 3.8.1					····	1	
59.00.0.0.5.4	324					·····	1	
59,00,0057	324						 	
59000058							1	
59000059	. 3.2v						 	
59,000/04	. 331						 	
59,00,01,05	. 331		4 1 4 4 1 4 4 4 4				 	

OR TITLE			PAGEOF						
08 NO		EWO-WAP	FUNCTION	ENGINEER			M/K		
W-1	W-2	W3	W4	W-5	W-5	W-7	114		
0 0 0 0 0 0 0 0 0 1	7 2 7 7 2 7 3 3 3 3 3		13 3 0 3 3 0 3 0 3 0 3	4 4 4 4 4 4 4 4 6 6	8 0 8 8 6 8 8 8 8 8	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	677777777777		
. 59,000,1.08	324								
59.000.110									
. 59,000,119	33.4								
. 59.00.0.141	324								
. 59.40.0.143	324								
. 59.00.0.1.4.4	3.4								
59000145	. 3.2.4								
59000 147	33.4								
59000151	32.4								
. 59.000, 152	3.2.4								
A	119411111		*******						
R	*******				1				
	******		*****	******	·····				
Δ			******						
E									
E									
6				1					
н									
7		******							
Y Y									
M							4		
A)						*****			
0	*******	himin			Luu.		4		
0	******								
21000 (000 21 00)	<u> </u>	سيسيسا	سسسي	Luiuuu	Lucius	بمنتينا	سيستبيلت		

Figure 5-10. Sample Input - Sum Unscheduled Maintenance Actions

a Inte				(MCMIEL			PME
ø 110		EWG-WAP	FUNCTION	- MALYST.			MATE
W-1	183	813	184	**4	W4	8-7	84
	0 1 6 6 8 8 9 8 8 9 9	123131323	3 3 3 3 3 3 3 3 3 3 3 3	6 4 4 4 4 4 4 4 5		6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	• • • • • • • • • • • • • • • • • • •
\$			1			I	
		I				1	
2						I	
4						I	
9		I				1	
2		I	1			Luci	
.3							
. 4			1			1	
		1				1	
بيبينات						1	
15		I				I	
19			Luni				
29		L				1,,,,,,,,	
.3						1	
19.033	<u>od</u>	1	1		L	1	
11. 03.4	00	1	Lunion				
						1	
		Lucium	1		1	1	
		Lucia	Lumini			1,,,,,,,,	سيسيباب
			1			1	
	Jump		1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			1	ببنينيات
		1	1		L	1	

Figure 5-10. Sample Input - Sum Unscheduled Maintenance Actions, Contd

The program accumulates the maintenance actions from Type 4 data bank records (Columns 26 through 28) for both aircraft subsets and each WUC and HMC combination, and then writes the total of unscheduled maintenance actions and hourly postflight and periodic inspections on an output magnetic tape file.

5.4.1.3 Output Description. The output magnetic tape file record layout, Figure 5-11, has 50 characters to a data record, blocked 60 to a tape record. The aircraft subset is 1 for isochronal and 2 for non-isochronal aircraft. The three data fields contain the following, for the corresponding WUC and HMC.

Field	Description
1	The number of unscheduled maintenance actions on each WUC, by how-malfunction code (HMC). This number is denoted by N_{uma} (WUC, HMC).
2	The number of repair actions in hourly postflight inspections on each WUC, by HMC: (N _{rep} (WUC, HMC)) _{HPO}
3	The number of repair actions in periodic inspections on each WUC, by HMC: $(N_{rep} (WUC, HMC))_{PE}$

A sample output is shown in Figure 5-12. A recent IBM 370 run for a fleet of 150 air-craft and 2201 WUCs required 10 minutes of computer time and generated 25,920 records.

RECORDS AND	RECORDS AND WORK AREAS DATE REVISED DATE	TE BY USED BY PROGRAMS SECTION	ETION .
RECDRO RAME	OUTPUT SUM UNSCHEDULED MAINTENANCE	VCE ACTIONS FILE NO. BLOCK DATE	
FIELO	W. U.C. HING UNKCHEUUED RETOUT	Refer of Across	
CHARACTER	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00 00 00 00 00 00 00 00 00 00 00 00 00	2 3 4 9 6 7 9 9 0
RECORD NAME	OUTPUT - MEAN AND VARIANCE OF	UNSCHEDULED MARHOUE BLOCK DATE	
FIELO	MEN VARIANCE NAME OF STATE OF	MA	
CHARACTER	07 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 2 3 4 5 6 7 6 9 6 1 2 3 4 5 6 7 6 9 6 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 6 9 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
RECORD RAME	OUTPUT - MERIN AND VARIANCE OF	UNSCHEDULED NORM MOJE BILERO, BLOCK DATE	
FIELD	M.U.C METHU VARIANCE NORM/MA NORM/MA	MA MA	
CHARACTER	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
RECORD RAME	OUTPUT - MERGE AND ADD WUC GROUP	E Devt, F. e.C. 81.0ck OATE	
FIELD	Group The Control of	-E-2 VARIAGLE-3	
CHARACTER	0-	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00 9 0 1 0 0 0

Figure 5-11. Record Layouts - Manhour and NORM Data

RECORDS AND	RECORDS AND WORK AREAS		DATE	REVISED DATE	<u> </u>	USED BY PROBRAMS			SECTION.
RECORD NAME	COTPUT - MEN	MERSUS: OF	WUC SET	- FILE 2			FILE NO.	810CK	DATE
FIELD	AVC 10862 FROUP TUBENT	w.u.c	VARIABLE	C C C C C C C C C C C C C C C C C C C					
CHARACTER	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 9 6 2 9 8 8 9 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- 5 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00 00 00 00 00 00	00 00 00 00 00 00 00 00 00 00
NECDRO NAME	OUTPUT - MENU	06	WVC SET	- FILE 3			FILE NO.	810CK	DATE
FIELD	Mensen Marie Change Person	VARIABLE N1	Mem- NORM/UMB	MERN MANHOLA PER REPLIE	Metry Present Person Pe				
CHANACTEN	2 2 2 3 6 3 6 6 6 6 7 7 7 8 6 6 6 7 7 7 7 8 6 6 6 7 7 7 7	9 6 6 7 9 8	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 6 7 6 6 6	1 2 2 0 6 6 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 3 4 6 8 9 7 8 9 9 9 1	2 3 4 6 9 7 9 9 0 1 2 3 4	0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
NECDRD NAME							FILE ND.	ВГОСК	DATE
FIELD									
CHANACTEN	2	0 0 0 0	00 00 00 00 00 00 00 00 00 00 00 00 00	2 2 4 5 6 7	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00 00 00 00 00 00 00 00 00 00	234867000712343	00 00 00 00	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
RECORD NAME							FILE NO.	BLOCK	DATE
FIELD									
CHANACTER		NO 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2 3 4 5 4 5	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- 00 00 00 00 00 00 00 00 00 00 00 00 00		00 00 00 00 00 00 00 00 00 00 00 00 00	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Figure 5-11. Record Layouts - Manhour and NORM Data, Contd

100		;	•
PAGE	5		
	•	•	î
	*	4	4
	•	•	5
	o c		
		5 ;	5
			00000000000000000000000000000000000000
0	00000000000000000000000000000000000000		00000000000000000000000000000000000000
CUNTRUL ZUSO 0000000 0000000	00000000000000000000000000000000000000	000 000 000 000 000 000 000 000 000 00	30000000000000000000000000000000000000
	00-4000-4000-400-400-400-400-400-400-40	10000000000000000000000000000000000000	00001110000000000000000000000000000000
			нанананана
15.52.53 72/226 BLK CNT 010 LENGTH 10C			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
	00000000000000000000000000000000000000	00000000000000000000000000000000000000	00000000000000000000000000000000000000
		0.000000000000000000000000000000000000	00000000000000000000000000000000000000
	00000000000000000000000000000000000000	23000000000000000000000000000000000000	00000000000000000000000000000000000000
	0104730000000000000000000000000000000000	00000000000000000000000000000000000000	465-450004554 465-450004554 465-4500004554
TU13			
2			NO NO GO

Figure 5-12. Sample Output - Sum Unscheduled Maintenance Actions

5.4.2 UNSCHEDULED MANHOUR AND NORM HOUR

5.4.2.1 Purpose. The purpose of this program is to generate two output files. One file contains unscheduled manhour-per-maintenance-action data, and the other contains unscheduled NORM hour per maintenance action data (Figures 5-9 and 5-13). Input to this program consists of sorted data bank, isochronal aircraft definition, a selected list of WUCs, and inspection criteria data.

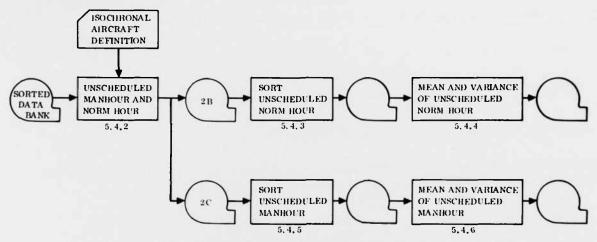


Figure 5-13. Logic Flow - Mean and Variance for Unscheduled Manhour and NORM Hour

5.4.2.2 Input Data and Procedures. There are two types of input data: tape and card deck. Tape data consists of data bank sorted in the order of WUC, HMC, aircraft serial number, and week number. For the tape record layout, see Figure 4-4. The data card deck has the following formats.

Column	Description
Card No. 1:	
1-5	WUC for Hourly Post Flight Inspection
6-10	
11-15	WUC for MA-1 Scheduled Calibration
16-20	
21-25	WUC for Periodic Inspection
26-30	WUC for IRAN Depot Visit
31-35	WUC for Preflight Inspection
36-40	WUC for Basic Postflight Inspection
41-45	WUC for Special Hourly Postflight
46-47	Minimum number of weeks between inspections for the four WUCs in Columns 1 through 20
48-49	Minimum number of weeks between inspections for Periodic Inspection and IRAN Depot Visit

Card No. 2:

3-5 Number of Isochronal Aircraft (Current program is dimensioned for a maximum of 36 isochronal aircraft, which may be increased by minor program modification.)

The following cards describe the isochronal aircraft fleet, one card per isochronal aircraft, and the serial numbers are sorted in ascending order.

Column	Description
3-10	Aircraft Serial Number
13-15	Starting Week Number for Isochronal Inspection

Sample input data deck listing is given in Figure 4-18.

The unscheduled manhour and NORM hour program (Figure 4-17) produces two output files, File 2B and 2C, containing the following information.

File	Data Type	Description
2B	3	NORM Hours - Unscheduled Maintenance Actions
2C	1	Manhours - Unscheduled Maintenance Actions

- a. Procedures to Generate Manhours Unscheduled Maintenance Action (for File 2C, Data Type 1). The manhour distributions are calculated separately for repair actions and unscheduled maintenance actions by accumulating the number of manhours charged against a specific WUC and a specific HMC for successive weeks until a week is encountered with a nonzero number of maintenance actions. The number of repair actions or unscheduled actions against the same WUC is accumulated at the same time. This data is obtained from Record Type 4. The ratio of these totals provides one observation of manhours-per-maintenance action for this WUC malfunction. Each occurrence of a maintenance action on an aircraft in the bank for the specific WUC malfunction combination provides another observation.
- b. Procedures to Generate NORM Hours Unscheduled Maintenance Actions (for File 2B, Data Types 3). The distribution for unscheduled NORM hours is obtained in the same fashion, except that only unscheduled maintenance actions are included. Again, NORM hours and maintenance action totals are accumulated from week to week until a nonzero number of maintenance action fields is encountered. The ratio of the two totals then provides one observation of unscheduled NORM hours per maintenance action for the specific WUC. Since the type of malfunction is not recorded in AFM 65-110 (through which NORM hours are recorded), it is not possible to calculate this distribution for a specific type of malfunction. The data for this calculation is obtained from Record Type 3.

5.4.2.3 Output Description. The output consists of two tape files (2B and 2C) with 20-character data records blocked 90 to a tape record, with the following formats.

Column	Description
1-5	Work Unit Code (WUC)
6-8	How-Malfunction Code (HMC)
10-15	Observation Data
17	Isochronal Indicator
	= 1 Isochronal Inspection
	= 2 Non-Isochronal Inspection
19	Data Type:
	For File 2B = 3 Unscheduled NORM Hours
	For File 2C = 1 Unscheduled Manhour
20	Record Mark

On a recent IBM 370 run for an F-106 fleet of 150 aircraft and 2201 WUCs, total computer time was about 13 minutes. Records totaling 214,651 and 243,801 were generated for Files 2B and 2C, respectively. A sample output is shown in Figure 5-14.

5.4.3 SORT UNSCHEDULED NORM HOUR

- 5.4.3.1 Purpose. The purpose of this task is to sort output File 2B for further processing.
- 5.4.3.2 Input Data and Procedures. The input consists of tape File 2B, as described in Paragraph 5.4.2.3.
- 5.4.3.3 Output Description. An output tape, 20 characters per record with a blocking factor of 90, consisting of unscheduled NORM hour records is sorted according to the following keys in ascending order.

Key	Column	Description
1	17	Isochronal Indicator
2	19	Data Type
3	1-5	Work Unit Code

It took about three minutes on the IBM 370 to sort 214,651 records for the 150-air-craft F-106 fleet. A sample output is shown in Figure 5-15.

5.4.4 MEAN AND VARIANCE OF UNSCHEDULED NORM HOUR

5.4.4.1 Purpose. This program generates an output file containing mean and variance unscheduled NORM hour data by WUC, isochronal subset type.

100	-	•	• •	*	.
PAGE	5	5	Ē .	5	2
	\$\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN	00000000000000000000000000000000000000	00000000000000000000000000000000000000	44444444444444444444444444444444444444
000000 000000	######################################		44444444444444444444444444444444444444	WINDUNANUNIANIANUN WUUNUUUUUUUUU GGGGGGGGGGGGGGGGGGGGGGGGGG	######################################
120 CONTRUL 2020 C	######################################	413131313131313131313131313131313131313		นนนนนนนนนนนนน	44444444444444444444444444444444444444
BLK CNT GIO LENGTH		411100011000 41444444444444 4144414141414141414141	44444444444444444444444444444444444444	นายการและการ การการการการการการการการการการการการการก	44444444444444444444444444444444444444
14.33.24 74/221	######################################	40100000000000000000000000000000000000	20000000000000000000000000000000000000	<pre> </pre> <pre> <pre> </pre> <pre> <pre> </pre> <pre> </pre> <pre> <pre> </pre> <pre> <pre> </pre> <pre> </pre> <pre> <pre> </pre> <pre> </pre> <pre> <pre> </pre> <pre> <pre> </pre> <pre> </pre> <pre> <pre> </pre> <pre> <pre> </pre> <pre> <pre> </pre> <pre> <pre> <pre> <pre> </pre> <pre> <pre< td=""><td>CECECESTER TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL</td></pre<></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre>	CECECESTER TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL TOTAL
1/r Tu.2				44444444444444444444444444444444444444	

Figure 5-14. Sample Output - Unscheduled Manhour and NORM Hour

100	,	•	;	å	
ACE	•	~		5	
		5	-		
	7777777777777777				
	**************************************		**************************************	**************************************	
	• 3303333333333333	• 33 3 33 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	333333333333333333	333333333333333333333333333333333333333	
				20222222222222222222222222222222222222	
	TETTETTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT			.naman n n n n n n n m n n n n n n n n n	
	• 000000000000000000000000000000000000	33333333333333333333333333333333333333	000000000000000000000000000000000000000	\$\frac{1}{2}\frac{1}{2	
	. 3030303333333	330333333333	33333333333333	333330 13333333 33961343133	
	44444444222222	4114-1414141414		20007720000000000000000000000000000000	•
0000000		111111111111111111111111111111111111111	11 12 12 12 12 12 12 12 12 12 12 12 12 1		
	444444444444	***********	272363555663556	3303000333333330 3300033333303	,
200000	nadaaaaaaaaaaaaaa naaaaaaaaaaaaaa aaaaaaaa	33333333333333333333333333333333333333	**************************************	\$\\ \frac{1}{2}\\ \frac{1}\\ \frac{1}\\ \frac{1}\\ \frac{1}\\ \frac{1}\\ \frac{1}\\ \frac{1}\\ \frac{1}\\ \frac{1}	
2	•	1414-4-44141-4	**************************************	ר ≽טייאה מירות הרול אירוי הירול כיזה הוסי≱ן וחק	,
2020	######################################	44444444555555 111111111111111111111111		ליים המשבר	
רטאן אטרי	•	333333333333333333333333333333333333333	44444444444444444444444444444444444444	333333333333333333333333333333333333333	
2 2	• • • • • • • • • • • • • • • • • • •	**************************************	**************************************	**************************************	1
140	• 0000000000000000000000000000000000000	333333333333333333333333333333333333333	303233333333333333333333333333333333333	30303030303030333333333003300330033003	•
LENGIR	44444444444444444444444444444444444444	\$\$45050355555 5500000000000000000000000000	444444444343444 4444444444343444	0.000000000000000000000000000000000000	,
יוט הנ	. 4000000000000000000000000000000000000	111111111111111111111111111111111111111		11111111111111111111111111111111111111	,
-					1
r Cs	• 03030333333333 • 03030333333333 • 03030333333333 • 0303333333333	031333333333333333333333333333333333333	10030000000000000000000000000000000000	3337733333333 33373333333 3337733333333 333733333333	
23 0	•	3930333533333	2020223223232	<u> </u>	i
7214	######################################	444444444444444444444444444444444444444	70777777777779	######################################	
		11111111111111111			
13.01		***********		######################################	
	• 000303303030303	************** 003303303000000 003003300000000	**************************************	**************************************	
710					
1 4/1		00000000000000000000000000000000000000		22.25.27.27.23.25.00 22.25.27.27.23.25.00 23.25.27.27.27.23.25.00 23.25.27.27.27.27.27.27.27.27.27.27.27.27.27.	

Figure 5-15. Sample Output - Sort Unscheduled NORM Hour

5.4.4.2 <u>Input Data and Procedures.</u> No input data is needed for this program. For a given WUC, data of unscheduled NORM hour will be accumulated. Values of mean and variance are then computed and are written on the output file.

5.4.4.3 Output Description. The output file has the following record format.

Column	Description
1	Isochronal Inspection Type = 1 Isochronal
	= 2 Non-Isochronal
11	Set to 3, for Unscheduled Norm Hour
13-17	Work Unit Code (WUC)
23-30	Mean for Unscheduled NORM Hour
32-39	Variance of Unscheduled NORM Hour
50	Record Mark

It took five minutes on the IBM 370 to process 2872 records for the F-106 fleet. A sample output and output format are shown in Figures 5-16 and 5-11, respectively.

5.4.5 SORT UNSCHEDULED MANHOUR

- 5.4.5.1 Purpose. The purpose of this task is to sort output File 2C for further processing.
- 5.4.5.2 Input Data and Procedures. The input consists of tape File 2C, as described in Paragraph 5.4.2.3.
- 5.4.5.3 Output Description. An output tape file, consisting of unscheduled manhours charged against a specific WUC and specific HMC, is sorted according to the following keys in ascending order.

<u>Key</u>	Column	Description
1	17	Isochronal Indicator
		= 1 Isochronal Subset
		= 2 Non-Isochronal Subset
2	19	Data Type
		= 1 Unscheduled Manhours
3	1-5	Work Unit Code (WUC)
4	6-8	How-Malfunction Code (HMC)

The output tape consists of 20-character data records, blocked 90 to a tape record. It took four minutes to sort 243, 801 records for a fleet of 150 F-106 aircraft. A sample output is shown in Figure 5-17.

100		*	ň
PAGE	101-101	2, 101	3, tor
	¥	*	×.
	• • • • • • • • • • • • • • • • • • •	3000,	3000
	3	3 111111111111111111111111111111111111	ž
2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		7
3000000 noc	00030000300003030300030333300	0 100000000000000000000000000000000000	0 000000000000000000000000000000000000
2050 0000000			NO CONTROL CON
CONTROL 2			
IH 100	* * * * * * * * * * * * * * * * * * *		
OLC LENGT			
S BLK CNT	**************************************	######################################	**************************************
3 74142	070000000000000000000000000000000000000	8 8 3 6 3 3 6 3 3 5 6 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7	
	44490000000000000000000000000000000000	0404x3067#7ux000800#U==10==== 0404v3067#7ux000800#U==10==== 0404x3067#7ux000800#U==10===== 0404x3067#7ux000800#U==10================================	65100011100 1 65500011100 1 65500011100 1 65500011100 1
1015			**********
1 4/			

Figure 5-16. Sample Output - Mean and Variance of Unscheduled NORM Hour

170			•	•		តំ
FAUE				5		3
	7				4414444444444444444444444444444444444	
	1	44439144447447474747474747474747474747474747	+ THATS+ F+ 134 3 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	+ CT&CC&CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	134504 + 4 4 4 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	**************************************
		# 1	44444 \$45.550000000000000000000000000000000000	27.101.001.001.001.001.001.001.001.001.00	COCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	
	Ď					~# ~
		#1310+1+#L41111 000010000000000000000000000000000	+ La+ La+ La+ La+ La+ La+ La+ La+ La+ La	#UP # # # # # # # # # # # # # # # # # #	+31-17-18-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-	01000000000000000000000000000000000000
2020 1000000 0000000	· · · · · · · · · · · · · · · · · · ·	COCOCOCOCOCOCOCOCOCOCOCOCOCOCOCOCOCOCO	000007760000 000007760000 0000077676767 0000077676767 00000776767676	TOTAL PROPERTY OF THE PROPERTY	70 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -	100 100
	:					
	1	+9004+LHTHHT43T 10003333030000 100033330330000 1000333333303000 10003333333333	#124+C10+C10+C10+C10+C10+C10+C10+C10+C10+C10	LMU+JUL+414TIJT 0101111010100000 0000000000000000 000000	######################################	00000000000000000000000000000000000000
		10000000000000000000000000000000000000	330,000,000,000,000,000,000,000,000,000	CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	COCCUERTO COCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCO	NOOS ON
LUNTRUC	•		333333333333333			333333333
9,		+UI-4WIIIW-4UII4 6H00-0000000000000000000000000000000000	00000000000000000000000000000000000000	+0J+910047#+U44 400H200H07H1304 400H2000203033 000H20003333333 000H20003300033	00000000000000000000000000000000000000	00000000000000000000000000000000000000
.56 72/23 BCK UNI DIO CENGIH I		AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	0.000000000000000000000000000000000000	CONCENT OF THE CONCEN	0.000 0.000	C.O.O.O.O.O.O.O.O.O.O.O.O.O.O.O.O.O.O.O
		THE PROPERTY OF THE PROPERTY O	######################################		COCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	
	••••••••	00000700000000000000000000000000000000	00000000000000000000000000000000000000		72 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
4.						
71		T.J.U.L.T. + J.J.U.J.U. A CO.	© CT CT CT CT CT CT CT CT	TUTTHE AT ME OF OCCOODS OCCO	######################################	00000000000
7P Tu12		00000000000000000000000000000000000000	00000000000000000000000000000000000000	00000000000000000000000000000000000000	00000000000000000000000000000000000000	0300003444

Figure 5-17. Sample Output - Sort Unscheduled Manhour

5.4.6 MEAN AND VARIANCE OF UNSCHEDULED MANHOUR

- 5.4.6.1 Purpose. This program generates an output file containing mean and variance of unscheduled manhour data by HMC, WUC, and isochronal subset type.
- 5.4.6.2 <u>Input Data and Procedures</u>. No input data is needed for this program. For a given WUC and HMC, data of unscheduled manhours will be accumulated. Values of mean and variance are then computed and are written on an output file.
- 5.4.6.3 Output Description. The output consists of values of mean and variance of unscheduled manhour, WUC, and HMC. The output file has the following record format.

Column	Description
1	Isochronal Inspection Type
	= 1 Isochronal
	= 2 Non-Isochronal
11	Set to 2, for Unscheduled Manhour
13-17	Work Unit Code (WUC)
19-21	How-Malfunction Code (HMC)
23-30	Mean for Unscheduled Manhour
32 - 39	Variance for Unscheduled Manhour
50	Record Mark

The tape file consists of 50-character data records, blocked 60 to a tape record. To generate 27, 121 records for a fleet of 150 F-106 aircraft required six minutes on the IBM 370. A sample output from a recent F-106 run and the output record format are shown in Figures 5-18 and 5-11, respectively.

5.4.7 MERGE AND ADD WUC GROUP IDENTIFICATION

- 5.4.7.1 <u>Purpose</u>. The purpose of this COBOL program is to merge the output files of Manhour and NORM, Mean and Variance of Unscheduled NORM Hour, and Mean and Variance of Unscheduled Manhour data into one file and to classify each record into a particular WUC group.
- 5.4.7.2 Input Data and Procedures. The input consists of three data tape files and a deck of cards defining the WUC groups. The three input data tape files are described in Paragraphs 5.4.1, 5.4.4, and 5.4.6 and the record layouts are given in Figure 5-11. A full description of collecting WUC data into groups is given in Paragraph 4.2.2. Essentially, data is collected at the three-digit level for a defined set of WUCs and at the two-digit level for the remaining data.

100	; -	÷	ň
PAGE	0	101	101
		Ÿ	ň
	(전) (전)	۳. د ج	8 L K
	30001.	3000	30000
	F	5	5

	* 000000000000000000000000000000000000	**************************************	* ************
CONTRUL ZUJO DUDUDDO UCEDDDD	**************************************	**************************************	
100 CON	3933303333033333333303303333333		
LENGIH	**************************************	######################################	
15.53.01 72/226 BLK CNT 010	*		222222222222
1/P TU14	252525255555555555555555555555555555555		000000000000000000000000000000000000000

Figure 5-18. Sample Output - Mean and Variance of Unscheduled Manhour

The data deck has the following format.

Card	Column	Description
a	1-2	Number of WUCs in WUC Set No. 1
b	1-3	WUCs in Set No. 1
c	1-2	Number of WUCs in WUC Set No. 2
d	1-5	WUCs in Set No. 2

A sample input data deck, that used for the F-106 Scheduled Maintenance Study, is shown in Figure 5-19.

The program reads WUC group data and assigns a group identifier to each WUC set. The first input file record is read, the appropriate group identifier and corresponding group WUC is added to the record, and the record is written on an output file. This is continued for each input record, then for each record on the second and third input files. After the last input record, the output tape record is padded with nines to end the routine.

5.4.7.3 Output Description. The output consists of a magnetic tape file, 50 characters to a data recc.d, blocked 60 to a tape record. The record layout is shown in Figure 5-11. The significance of each variable is determined by reference to the RECORD ID in Column 11; this was assigned during creation of the three input data files. A sample of output data is shown in Figure 5-20. On a recent IBM 370 run for a fleet of 150 aircraft and 2201 WUCs, total computer time was two minutes. A total of 55, 853 records were generated.

OO TIFLE				{NGINETA	·		PAGE OF
DØ NO.	AWO	EWO-WAP	FUNCTION	ANALYST.			DATE
W-1	W-2	W-3	W4	W.S.	W-4	₩-7	#1
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1111111111111	3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	302555560	000000000	1
4.3			1				
J.T.			1				1
l.l.K			1			I	
1.1				Lucian			
38			1				
Bure			4	1			
3.9			1		1		1
3.5							
3		, , , , , , , , , , , , , , , , , , , 	4		I		1
4			سسسبب				1,
33.							
3M							
31				*******			+
38			+				+
35		4	 				
3				*****			
	******		+	******	*******	******	*****
£1		· · · · · · · · · · · · · · · · · · ·	+		*******	*******	+
42F		*******	+	1	*****	****	+
24		********	+	******	******	*****	+
3		********		*******		****	
4	11111111	++++++++	++++++++	111111111		1111111	1
158		1	1	+	11111111	1	1111111
ST		111111111		*****	1	******	++++++

Figure 5-19. Sample Input - Merge and Add WUC Group Identification

OB TITLE				ENGINEER			MALG
08 NO	AW0	EWO-WAP	FUNCTION	ARALYST			BATE
# -1	W-2	W-3	W4	W-9	W-4	#-7	184
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	271111111	********	4 4 4 4 4 4 4 4 4 4			677777777
5	1				I		
6A							
60							
66							
664	4				1		
16.T.							
6							
7	4						
9.1					<u> </u>		
9	4						
سسسلة	1						
52							
55							
3							
٠						 	
			*****				uluuuu
<u> </u>							
3							
17			********				
سسسا							
4.60.6		 					
40	4						
48		 					
<u> </u>	-						
74D	<u> Januaraan</u>	Lucia	بسيسي	Linner			تبينتيك

OB TITLE				ENGINEES			PAGEOF
08 NO	AWO	EWO-WAP	FUNCTION	AMILYST.			MATE
W-1	₩-2	WJ	W4	W-J	184	W-7	14
	1111111111	1111111111	1111111111	* * * * * * * * * * * * * * * * * * * *			6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
145							
7.4H							
7.4K							
744		L					
74P	1						
7.4.Q	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
	1	 				سيسا	
	1						
	1						

	1						
******	fuu						

*****							4

******	Junior						

*****	+						

Figure 5-19. Sample Input - Merge and Add WUC Group Identification, Contd 5-48

100	•	,	m
PAGE	9		101
	,	•	e e
	9		18
	0		3000
	3		5
	000000000000000000000000000000000000000	000000000000000000000000000000000000000	
	• 000000000000000000000000000000000000	00000000000000000000000000000000000000	\$\text{No.10} = 140 \text{No.20} \text{No.20} \text{On.20} \text{No.20} \text{On.20} \text{No.20} \text{On.20} \text{No.20} \text{On.20} \text{No.20} No.20
1	00000000000000000000000000000000000000	30000000000000000000000000000000000000	30000000000000000000000000000000000000
0000000	G000000000000000000000000000000000000	30200000000000000000000000000000000000	0303033030000 044740447034004 03030300000000 030303030000000 03030003303000330 030300033000330
ეიეიი	00/100/100/100/100/100/100/100/100/100/	46. C4000000000000000000000000000000000000	
00 050	\$<<<<<<<<<<<><<<><<<<<<<<<<><<<<<><<<<><<<<	444444444444444444444444444444444444444	
RUL 2			
UN I			
90	######################################	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	
72/228 BLK CNT 010 LENGTH 10	00070300333000000000000000000000000000	0300223330232323233303030333333 m10034000033-44000030000373330 90000030333300000333300323330 22232323033333030333330000333300 0330033300033300000333300	00000000000000000000000000000000000000
	00030000000000000000000000000000000000	132373333333333333333333333333333333333	37333333333333333333333333333333333333
	00000000000000000000000000000000000000	907303000000000000000000000000000000000	000000000000000000000000000000000000000
•	00410000000000000000000000000000000000	00000000000000000000000000000000000000	
15.53	{}	3333333333333333333333333333	24441111111111111111111111111111111111
1022			
1/1	00000000000000000000000000000000000000	######################################	

Figure 5-20. Sample Output - Merge and Add WUC Group Identification

5.4.8 SORT MANHOUR AND NORM DATA

- 5.4.8.1 Purpose. The purpose of this task is to sort the output file from Merge and Add WUC Group Identification for further processing.
- 5.4.8.2 Input Data and Procedures. The input consists of the tape file from the Merge and Add WUC Group Identification described in Paragraph 5.4.7.3.
- 5.4.8.3 Output Description. The output file, 50 characters to the data record, blocked 60 to a tape record, is sorted according to the following keys.

Key	Column	Description		
1	1	Aircraft Subset (Ascending)		
2	2-3	Group Identification (Ascending)		
3	13-17	WUC (Ascending)		
4	19-21	HMC (Descending)		
5	11	Record Identification (Ascending)		

It required about two minutes on the IBM 370 to sort 55,860 records for the 150-aircraft F-106 fleet.

5.4.9 MEANS OF WUC SET

- 5.4.9.1 Purpose. The purpose of this task is to compute the mean values of various data from the data bank, by WUC group.
- 5.4.9.2 Input Data and Procedures. The input data consists of the sorted output of the data at the five-digit WUC level previously described. The program generates two output files: data at the five-digit WUC level and data at the WUC group level.
- 5.4.9.3 Output Description. The output consists of two magnetic tape files, both 50 characters to a data record, blocked 60 to a tape record. The format of each data record is shown in Figure 5-11.

At the five-digit WUC level, the following variables are computed and written on File-2.

$$C = \sum_{HMC} [\overline{MH/ma(WUC, HMC)} \cdot N_{uma}(WUC, HMC)]$$

$$N_2 = \sum_{HMC} N_{uma}(WUC, HMC)$$

Example 2 indicates a summation over all HMCs applicable to a particular WUC.

A sample output is shown in Figure 5-21. At the WUC group level, the following variables are computed and written on File - 3.

Mean manhours per unscheduled maintenance action:

$$\overline{\text{MH/uma}} = \frac{1}{N_1} \sum_{\text{WUC}} \left[\overline{\text{MH/ma}} (\text{WUC, HMC}) \cdot N_{\text{uma}} (\text{WUC, HMC}) \right]$$

$$N_1 = \sum_{\text{WUC}} \sum_{\text{HMC}} N_{\text{uma}} \text{(WUC, HMC)}$$

Mean NORM per unscheduled maintenance action:

$$\overline{\text{NORM/uma}} = \frac{1}{N_1} \sum_{\text{WUC}} \left| N_2 \cdot \overline{\text{NORM/ma}} (\text{WUC}) \right|$$

Mean manhours per periodic inspection repair action:

$$(\overline{\text{MH/rep}})_{\text{PE}} = \frac{\sum_{\text{WUC}} \left[\text{MH/ma}(\text{WUC, HMC}) \cdot \text{N}_{\text{rep}}(\text{WUC, HMC})_{\text{PE}} \right]}{\sum_{\text{WUC}} \sum_{\text{HMC}} \left[\text{N}_{\text{rep}}(\text{WUC, HMC})_{\text{PE}} \right]}$$

Mean manhours per hourly postflight inspection repair action:

$$(\overline{\text{MH/rep}})_{\text{HPO}} = \frac{\sum_{\text{WUC}} \left[\sum_{\text{HMC}} \left[\text{MH/ma}(\text{WUC}, \text{HMC}) \cdot \text{N}_{\text{rep}}(\text{WUC}, \text{HMC})_{\text{HPO}} \right] \right]}{\sum_{\text{WUC}} \sum_{\text{HMC}} \left[\text{N}_{\text{rep}}(\text{WUC}, \text{HMC})_{\text{HPO}} \right]}$$

In these equations, the symbol \sum_{WUC} indicates a summation over all WUCs in the set.

A sample output is shown in Figure 5-22.

On a recent IBM 370 run for an F-106 fleet of 150 aircraft and 2201 WUCs, total computer time was two minutes. A total of 2886 records were generated on File -2 and 108 records were generated on File -3.

5.4.10 VARIANCE OF WUC SET

5.4.10.1 Purpose. This COBOL program computes the variance of various data from the data bank and prints the final mean and variance results in convenient tabular form.

•	*			*
10	101			
	2, 1			**
•				•
. 36.4. 8.4.8.4.8.8.8.8.8.8.8.8.8.8.8.8.8.8.	æ •2			.
å	<u>е</u> н		LICE TO LE	5
## 5 ***********************************	. ***********	********	***********	******
	2000-1-0-1-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0	ACAMABBANCE ACAMACAN	00000000000000000000000000000000000000	
33000000000000000000000000000000000000		10000000000000000000000000000000000000	00000000000000000000000000000000000000	000000000000000000000000000000000000000
	200000000000000			######################################
OCHANGON TO COCONTO CO	**************************************		**************************************	00+40+MP + 00+400
######################################	123300000000000000000000000000000000000	230340000037346 20044000037364 2006000000000 200600000000000	######################################	94496WPDF#40 69499999999 69499999999 69499999999 69499999999
00000000000000000000000000000000000000	70146336306336 4 111163163086314 1116316315316336 4	acoopoooooooooooooooooooooooooooooooooo	1900 244 3400 9444 31 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	03330000000000000000000000000000000000
40149001X4W4000W				MUNICIPAL PROPERTY OF THE PROP
			- "	
	, , , , , , , , , , , , , , , , , , ,	10000000000000000000000000000000000000		000000000000 0044444000000

Figure 5-21. Sample Output - Mean of WUC Set, File-2

Figure 5-22. Sample Output - Mean of WUC Set, File-3

- 5.4.10.2 Input Data and Procedures. The input consists of three files: the sorted output data at the five-digit WUC level and the two files from the Mean of WUC Set program. The program computes the variance of NORM and manhours per unscheduled maintenance action, leads in the previously computed mean values, and then prints out six data results for each WUC group of each aircraft subset.
- 5.4.10.3 Output Description. The output consists of a file, 100 characters to a data record, blocked 20 to a tape record. The variances are first computed for the WUC group using all three input files as follows.

Variance of manhours per unscheduled maintenance action:

$$\sigma_{\text{MH/uma}}^2 = \frac{1}{N_1} \sum_{\text{WUC}} \left\{ N_2 \cdot A^2 + \sum_{\text{HMC}} \left[N_{\text{uma}} (\text{WUC}, \text{HMC}) \cdot \sigma_{\text{MH/ma}}^2 (\text{WUC}, \text{HMC}) + B^2 \right] \right\}$$

where:

$$A = \frac{C}{N_2} - \overline{MH/uma}$$

$$B = \overline{MH/ma} (WUC, HMC) - \frac{C}{N_2}$$

Variance of NORM per unscheduled maintenance action:

$$\sigma_{\text{NORM/uma}}^{2} = \frac{1}{N_{1}} \sum_{\text{WUC}} N_{2} \left\{ \sigma_{\text{NORM/ma}}^{2} (\text{WUC}) + \left[\frac{1}{\text{NORM/ma}} (\text{WUC}) - \frac{1}{\text{NORM/uma}} \right]^{2} \right\}$$

For each aircraft subset and WUC group, the output file contains:

- a. WUC group descriptor.
- b. Aircraft Subset.
- c. Mean Manhours/Unscheduled Maintenance Action.
- d. Variance of Manhours/Unscheduled Maintenance Action.
- e. Mean NORM/Unscheduled Maintenance Action.
- f. Variance of NORM/Unscheduled Maintenance Action.

- g. Mean Manhours/Periodic Inspection Repair Action.
- h. Mean Manhours/Hourly Postflight Inspection Repair Action.

A sample output is shown in Figure 5-23. It required two minutes to process the input files for 150 F-106 aircraft; 114 lines of output were generated.

		RESULTS OF	PROCESSING	MAINTENANCE	GNA SUCHNAM	NORM DATA	PAGE 1
GREEP.	ALBCRAFT 150 150 150	MHFORA	VARJANCE	NHEADUMA	XARAQUAE	EMMTRENI PE	(MHTREP) HPO
ijķ	i šo	2.0	3.1	, ç	1	2.4	3.3
t ża	130	1.5	26.5	• 1	6.7	5.2	1.5
12	150	4.3	17.8	.9	19.9	í.ē	2.6
136	1 80	2.2	43.8	: 2	11.7	2.9	• 5
13	[\$0 [\$0	3.0	ĩĩ.ź	1.č	29. 9	2.3	2.5
14	150	4.8	121.9	2.0	62.2	3.9	3.3
23H	1 SO 1 SO	3.7	6.3	. 9	34.0	3.2	.0
231	i \$0 i \$0 i \$0	5.4	16.0	2.4	19.5		1.6
335	130	7:3	14.0	1.5	180 1	1.0	2.4
23	i şõ	7.G	82.4	2.4	e 2 . 6	6.4	9.1
41F	I \$0 I \$0 I \$0	3.2	3.6	1.5	12.7	2.0	5.0
42E	120	3.2	3. 9	. 9	7.3	1.5	. 6
42F	150	5•6	41.9	۱.0	9. 7	5	3.9
426	1 \$ 0 1 \$ 0	3.7	13.4	1.3	14.6	2.0	3.0
44	150	1.9	2.6	,.0	30.3	2.1	3.0
453	1 SO 1 SO	2.1	2.3	1.5	7. 8	1.8	1.4
45	021	2.9	18.2	, • 9	60.3	1.0	1.6
46A	1 S O	9.6	105.1	1.4	13.6	5.1	5.9
46G	iso	4.5	47.4	1.7	19.0	2.0	1.0
46H	1 50	7.7	96.9	• 2	2.7	2.7	3:7
46	1 50	5.4	32.3		5.5	4.6	
47	1 S O 1 S O	4.3	30.4	1:1	17.4	2.7	1:0
49	1 20	1.5	1.3	3.*		3.7	ń
51	150	3.5	37.0	• 4	10.7	1.6	4 • 1
55	150	4.1	29.2	'n	Ď.	7.5	4.0
63	I ŠŪ I ŠO	2.9	26.8	• 8	16.9	•3	1.3
71	เรีย	2.4	12.5	:7	. 17.7	1.2	1.6
75	i şö	2.9	21.7	• 4	8. 6	3.6	5.7
63	1 \$0 1 \$0	4.8	44.5	•6	1.9	2.1	2.4
74630	150	1.5	2.6	. 6	3.0	2.0	0
74A 748	1 SO 1 SO	1.2	23.1	1.0	4.1	1:1	1:1
74C	1 50	1.2	1.4	. 3	4.0	7.7	. 7
740	1 50	1.8	4 1 1	1.6	23.1	1.3	1.5
74H	įšō	2.9	32.1	. 5	4.6	2.3	1.9
74K	150	2.3	9.5	• 3	17.1	1.0	1.9
74P	išŏ	2.7	54.1	1.5	58. 9	1.4	1.5
749	HCN-150	3.3	11.5		123.3	3.4	3.9
iik	NCN-ISO NCN-ISO	2.9	30.1	- 4	123.3	1.7	1:4
11	NCN-150	3.1	35.0	• 1	7. 3	2.4	2.0
120	NLN-150 NCN-150	2.5	13.3	:1	5.1	1.6	1.7
130	NGN-ISO	4.6	41.9 21.2	1.3	38.6	2.7 2.1	3.3
137	NCN-150	3.2	21.2	• •	• 1	2.1	1.0

Figure 5-23. Sample Output - Variance of WUC

SECTION 6

COMPUTER SOURCE DECK LISTINGS

6.1 66-1 FILE GENERATION PROGRAMS

6.1.1 66-1 SCREEN

```
//T9897P JOB 01:1 6. WANG T.PRTY>02:TYPRUN>HOLD //C9897C LXEC Pyb55L:TIME>02:ACCT>D35322107
                          OU DISPSC :PASS J.UNITSC T+F2:1:DEFER 3:DSN>+B:9895402.
LADELSC :NL 3:
//CHG.1U15
                                                                                                                              CT13
11
D22-0UT
                                                                                                                                1440 CDS
                                                                                                                                   C98970
C98970
C98970
                                                                                          6. WANG.
UIUSU HEMAKKS.

DIUGU PHOGRAM SCREENS 66-1 DATA TAPE.

UZUUU ENVIRONMENT DIVISION.

UZUUU CONFIGURATION SECTION.

UZUZU SOURCE-COMPUTER, IBM-360.
                                                                                                                                    C98970
                                                                                                                                    C98970
C98970
                                                                                                                                    C98970
           INPUT-OUTPUT SECTION.
FILL-CONTROL.
02100
                                                                                                                                    C98970
C98970
02110
                   SELECT INFILE
PESCHVE 1 ALTERNATE AREA.
SELECT OUTFILE
RESCRYE 1 ALTERNATE AREA.
SELECT SC-FLE
PESCHVE 1 ALTERNATE AREA.
U212U
                                                                        ASSIGN TO UT-S-TU13
                                                                                                                                    C98970
02130
02140
                                                                                                                                    C98970
                                                                        ASSIGN TO UT-S-TU22
                                                                                                                                    C98970
                                                                        ASSIGN TO DA-S-DT01
                                                                                                                                    C98970
02160
02170
          DATA DIVISION.
                                                                                                                                    C98970
10000
           DATA DIVISION.
FILE SELTION.
FD INFILE
MECURULING MODE IS F
BLOCK CONTAINS 30 RECORDS
MECURU LIMITAINS 90
LARLL MECURUS AME OMITTED
DATA MECONDS AME INDATA.
01 INDATA SYNC.
02 DATAB.
10010
                                                                                                                                    C98970
10120
10130
                                                                                                                                    C98970
10140
                                                                       CHARACTERS
                                                                                                                                    C98970
C98970
10150
                                                                                                                                    C98970
10160
10170
                                                                                                                                    C98970
C98970
             UZ DATAB.
10160
              US UATAL
                                                PICTIME XX.
                                                                                                                                    C98970
                                               PICTURE XC43.
PICTURE XC63.
PICTURE XC63.
PICTURE XC183.
              US TIPL
US DATAS
US SER-NO
10190
                                                                                                                                    C96970
                                                                                                                                    C98970
C98970
 10210
10220
              UZ DATAS
             02 DATAS
02 DATE-IN.
03 DAY
03 MONIH
03 YEAR
02 DATAT.
10228
                                                                                                                                    C98970
                                               PICTURE 99.
PICTURE 99.
PICTURE 9.
10230
                                                                                                                                    C98970
                                                                                                                                    C98970
10240
10250
                                                                                                                                    C98970
C98970
10456
             US DATAY.
US WUC
US ACTION
US WO
US HOW-MAL
US DATA4
                                               PICTURE XC5).
PICTURE X.
PICTURE X.
PICTURE XC3).
PICTURE XC27].
10260
                                                                                                                                    C98970
10270
10280
                                                                                                                                    C98970
C98970
                                                                                                                                    C96970
C98970
10290
10300
             U3 REC-IU
U3 THM
U3 DATA5
10310
                                               PICTURE X.
                                                                                                                                    C98970
10320
                                               PICTURE X.
                                                                                                                                    C98970
             UZ FILLER
                                                                                                                                    C98970
10340
10450
                                               PICTURE X.
11100
            FU OUTFILE
                                                                                                                                    C98970
           FU OUTFILE
HECUMUING MODE IS F
BLOCK CUNTAINS 30 HECORDS
HECOPD CONTAINS 90
LARLL HECORDS ARE OMITTED
DATA HECORDS ARE OUTDATA.
UI OUTDAIA SYNC.
11120
                                                                                                                                    C98970
                                                                                                                                    C98970
11130
                                                                       CHARACTERS
11140
                                                                                                                                    C98970
11150
                                                                                                                                    C98970
                                                                                                                                    C98970
11170
                                                                                                                                    C98970
```

```
U2 DATAF-OUT.
11178
                                                                                                                           C98970
             03 DATAI-OUT
                                             PICTURE XX.
11180
                                                                                                                           C98970
                                             PICTURE X[4].
PICTURE X[8].
             03 TYPL-OU!
03 DATA2-OUT
02 SER-NO-OUT
11190
                                                                                                                           C98970
11200
                                                                                                                           C98970
11210
                                             PICTURE XEAD.
                                                                                                                           C98970
14220
11228
             OZ DATAS-OUT
                                             PICTURE X[ 18 ].
                                                                                                                           C98970
             U2 DATE-OUT.
                                                                                       8
                                                                                                                           C98970
             03 DAY-OUT
11230
                                            PICTURE 99.
PICTURE 99.
                                                                                                                           C98970
11240
                                                                                                                            C98970
             03 YEAR-OUT
02 DATA7-OUT.
03 WUC-OUT
11250
                                             PICTURE
                                                                                                                           C98970
11258
                                                                                                                           C98970
                                             PICTURE XES3.
11260
                                                                                                                           C98970
                                            PICTURE X.
PICTURE XX.
PICTURE XXX.
11270
             03 ACTION-OUT
                                                                                                                           C98970
             03 WD-OUT
03 HOW-MAL-OUT
11280
                                                                                                                           C98970
11290
                                                                                                                           C98970
             03 DATA4-OUT
03 HEC-ID-OUT
03 THM-OUT
11300
11310
                                            PICTURE XC271
                                                                                                                           C98970
                                                                                                                           C98970
C98970
11320
                                             PICTURE X.
             03 DATAS-OUT
11330
                                             PICTURE
                                                                                                                           C98970
11340
                                             PICTURE 9999.
                                                                                                                           C98970
             02 DATA6-OUT
11350
11500
                                             PICTURE X.
                                                                                                                           C98970
            FO
                                                                                                                           C98970
                  RECORDING MODE IS F
BLOCK CUNTAINS 20 RECORDS
HECURD CONTAINS 80
LABLE RECORDS ARE STANDARD
DATA HECORDS ARE DATA-IN.
11510
                                                                                                                           C98970
11520
                                                                                                                           C98970
11530
                                                                CHARACTERS
                                                                                                                           C98970
11540
                                                                                                                           C98970
11550
                                                                                                                           C98970
                  DATA-11 SYNC.

02 SCHLEN-DATA PICTURE X[80].

02 FILLER REDEFINES SCHEEN-DATA

03 DATA-1 PICTURE X[4].

03 FILLER PICTURE X[76].
11600
            01
                                                                                                                           C98970
11610
                                                                                                                           C98970
11620
11630
11640
                                                                                                                           C98970
                                                                                                                           C98970
                                                                                                                           COROTA
                        OS FILLER PICTURE XC 763.

FILLER PEDEFINES SCREEN-DATA.

OS DATA-2 PICTURE XC 793.

FILLER PICTURE XC 793.

OS DATA-3 PICTURE 99.

OS FILLER PICTURE XC 783.

OS DATA-4 PICTURE XC 83.

OS FILLER PICTURE XC 83.

OS FILLER PICTURE XC 83.

FILLER PICTURE XC 723.

FILLER PICTURE XC 723.
11650
                                                                                                                           C98970
I1060
                                                                                                                           C98970
C98970
11670
11080
11090
                                                                                                                           C98970
                                                                                                                           C98970
11700
11710
                                                                                                                           C98970
                  02
                                                                                                                           C98970
                                                                                                                           C98970
11730
                                                                                                                           C98970
11740
11750
11760
                        TILLER REDEFINES SCREEN-DATA.

O3 DATA-5 PICTURE XE33.

O3 FILLER PICTURE XE773.
                                                                                                                           C98970
                                                                                                                          C98970
                                                                                                                          C98970
C98970
30000
            WORKING-STORAGE SECTION.
           01 NINE SYNC.
SOUIU
                                                                                                                           C98970
                                            PICTURE XX
PICTURE XE43
PICTURE XE83
30020
                                                                                 VALUE 1991.
                                                                                                                          C98970
             02 FILLER
02 FILLER
                                                                                 VALUE 199991.
VALUE 199999991.
VALUE 199999991.
30030
                                                                                                                          C98970
30040
                                                                                                                           C98970
30050
                                             PICTURE XE&3
                                                                                                                          C98970
                                            PICTURE X(18)
30060
             02 FILLER
                                                                                 VALUE
                                                                                                                           C98970
                                                                                                                          C98970
                                            PICTURE 99
PICTURE 99
PICTURE 9
                                                                                 VALUE 99.
VALUE 99.
VALUE 9.
VALUE 19199991,
VALUE 191.
30080
             02 FILLER
                                                                                                                          C98970
             02 FILLER
02 FILLER
30090
                                                                                                                           C98970
30100
                                                                                                                          C98970
             02 FILLER
02 FILLER
02 FILLER
30110
                                             PICTURE XC53
                                                                                                                          C98970
30120
                                             PICTURE X
                                                                                                                           C98970
                                             PICTURE X
                                                                                                                          C98970
             02 FILLER
                                             PICTURE XXX
30140
                                                                                  VALUE 19991.
                                                                                                                          C98970
                                             PICTURE XC273
                                                                                 VALUE
30150
                                                                                                                           C98970
30160
                                               C98970
                                                                                VALUE 191.
VALUE 191.
VALUE 191.
VALUE 191.
                                             PICTURE X
30170
             02 FILLER
                                                                                                                          C98970
             02 FILLER
112 FILLER
115 FILLER
116 FILLER
                                            PICTURE X
                                                                                                                          C98970
30190
                                                                                                                          C98970
Angull
Ang 14
                                            hir jour gund
                                                                                                                          CARALU
Labatu
                TAHLE -HMC STNC.
30360
           01
                                                                                                                          C98970
                                                   PICTURE XXX OCCURS & TIMES DEPENDING ON NO-REJ-HMC.
                                                                                                                          C98970
30370
                 DAYS-IN-YEAR SYNC.
30400
           01
                                                                                                                          C98970
             02 FILLER
02 FILLER
02 FILLER
30410
                                            PICTURE 999
                                                                                                                          C98970
                                                                                 VALUE
                                                                                           31.
                                                                                 VALUE 31.
VALUE 59.
VALUE 90.
VALUE 120.
VALUE 151.
VALUE 181.
                                            PICTURE 999
PICTURE 999
PICTURE 999
PICTURE 999
PICTURE 999
30420
                                                                                                                          C98970
30430
                                                                                                                           C98970
30440
             02 FILLER
                                                                                                                          C98970
             02 FILLER
30450
                                                                                                                           C98970
30460
                                                                                                                           C98970
30470
             02 FILLER
                                            PICTURE 999
                                                                                                                          C98970
                                                                                 VALUE 212.
VALUE 243.
VALUE 273.
VALUE 304.
VALUE 334.
30480
             02 FILLER
02 FILLER
                                            PICTURE 999
PICTURE 999
                                                                                                                          C98970
                                                                                                                          C98970
             02 FILLER
02 FILLER
30500
                                             PICTURE 999
                                                                                                                          C98970
                                            PICTURE 999
PICTURE 999
30510
                                                                                                                          C98970
                                                                                                                          C98970
30520
             02 FILLER
30530
30540
            I THO-DAYS-IN-YEAR, REDEFINES DAYS-IN-YEAR SYNC. UZ KDAYS OCCURS 12 TIMES
                                                                                                                          C98970
                                                                                                                          C98970
                                            PICTURE 999.
                                                                                                                          C98970
            11 DAYS-IN-YEARS SYNC.
02 FILLER PICTURE 9[4]
30000
           0.1
                                                                                                                          C98970
30610
                                                                                 VALUE
                                                                                                                          C98970
```

```
02 FILLER PICTURE 9(4) VALUE 365
02 FILLER PICTURE 9(4) VALUE 736
02 FILLER PICTURE 9(4) VALUE 1095
02 FILLER PICTURE 9(4) VALUE 1095
02 FILLER PICTURE 9(4) VALUE 1026
02 FILLER PICTURE 9(4) VALUE 1026
02 FILLER PICTURE 9(4) VALUE 2191
02 FILLER PICTURE 9(4) VALUE 2256
01 DAY-IN-YEAR-TABLE REDEFINES DAYS-IN-YEARS SYNC.
02 DAY-YEAR OCCURS 0 TIMES
01 SER-NO-A PICTURE X(0) SYNC.
01 TAPLE-S-N, REDEFINES SER-NO-A SYNC.
02 LISTS-S-N, OCCURS 8 TIMES.
                                                                                                                                            VALUE 365.
VALUE 730.
VALUE 1095.
VALUE 1461.
VALUE 1826.
 30620
                                                                                                                                                                                                                    C90970
  30630
                                                                                                                                                                                                                    C90970
 30640
                                                                                                                                                                                                                    C90970
                                                                                                                                                                                                                    C90970
 30060
                                                                                                                                                                                                                     C98970
                                                                                                                                             VALUE 2191.
 30670
                                                                                                                                                                                                                    C98970
 30680
                                                                                                                                                                                                                    C90970
 30000
 30700
 30710
                                                                                                                                                                                                                    C98970
 30800
                                                                                                                                                                                                                    C98970
 30810
                       02 L1515-5-N.
                                                                             OCCURS 8 TIMES.
 30820
                                                                                                                                                                                                                    C90970
                                                                            OCCURS O TIMES,
PICTURE X,
PICTURE XXX SYNC VALUE 10001.
PICTURE S999 COMPUTATIONAL VALUE ZERO SYNC.
PICTURE S999 COMPUTATIONAL VALUE ZERO SYNC.
PICTURE XEOJ.
PICTURE XEOJ.
PICTURE XEOJ.
CONTROL OF 
 30830
                    01 LIT-ZEHO
 30890
                                                                                                                                                                                                                    C90970
                              KOUNT
                                                                                                                                                                                                                    C98970
  30900
 30910
                                                                                                                                                                                                                    C90970
C98970
                               LOW-S-H SYNC
HIGH-S-H SYNC
LEAP-YEAR-68
                                                                           PICTURE AL SYNC PICTURE 9 SYNC VALUE PICTURE XE4].

PICTURE 9E6] SYNC VALUE ZERO.

***CTURE 9E6] SYNC VALUE ZERO.
  30420
 30930
                                                                                                                                                                                                                    C90970
                                                                                                                                                                                                                    C98970
C98970
C98970
 30950
                    01
                               LEAP-YEAR-72
                                A-C-TYPE SYNC
 30960
                               RECORUS-READ
RECORUS-PASS
  30970
                             NO-REJ-A-C SYNC PICTURE 99.
NO-REJ-ACTION SYNC PICTURE 99.
NO-REJ-ACTION SYNC PICTURE 99.
REJ-S-H SYNC.
02 R-S-N OCCUPE
                    01
 SOYAU
                                                                                                                                                                                                                    C98970
                                                                                                                                                                                                                    C90970
 31010
                    01
 31020
                                                                                                                                                                                                                    C90970
 31030
 31140
                                                                                                                                                                                                                    C90970
                                02 R-S-N OCCURS 25 TIMES DEPENDING ON NO-REJ-A-C.
                                                                                                                                                                                                                    C90970
                                                                                                                                                                                                                    C90970
 31160
                    01 TABLE-ACTION-REJ SYNC. U2 ACTION-REJ OCCURS & TIMES DEPENDING ON NO-REJ-ACTION.
  31250
 31260
 31270
                                                                                         PICTURE X.
                                                                                                                                                                                                                    C98970
50000
                    PROCEDURE DIVISION.
                                                                                                                                                                                                                    C90970
                    OPEN-FILES.

OPEN INPUT INFILE, SC-FLE.

OPEN OUTPUT OUTFILE.
 50010
                                                                                                                                                                                                                    C90970
 50020
 50030
                                                                                                                                                                                                                    C98970
 50035
                                PERFORM SCREEN-UATA-IN THRU END-S-D-I.
                                                                                                                                                                                                                    C98970
 50040
                    READI.
                                                                                                                                                                                                                    C98970
 50050
                                READ THE TLE
                                                                                                                                                                                                                    C90970
50060
                                AT END GO TO BLOCK-CHECK.
ADD 1 TO RECORDS-READ.
 50070
                                                                                                                                                                                                                    C98970
                               IF TIPE NOT EQUAL TO A-C-TYPE GO TO READ1.

IF REC-ID NOT EQUAL TO REC-IDENT GO TO READ1.

IF HOW-MAL LESS THAN LIT-ZERO GO TO READ1.

IF DAY NOT GREATER THAN ZERO GO TO READ1.

IF SER-HO EQUAL TO SPACE GO TO READ1.
 50080
                                                                                                                                                                                                                    C98970
50090
50100
                                                                                                                                                                                                                    C98970
50110
                                                                                                                                                                                                                    C98970
50120
                    SPECIAL-SCREEN.
 50200
                                                                                                                                                                                                                    C90970
50210
                                MOVE ZENO TO KOUNT.
                                                                                                                                                                                                                    C98970
50220
                    CHECKI.
                                                                                                                                                                                                                     C90970
                               ADD I TO KOUNT.
                                                                                                                                                                                                                    C90970
                                IF HOW-MAL IS EQUAL TO HOW-HAL-REJ (KOUNT) 80 TO READL. IF KOUNT IS LESS THAN NO-REJ-HMC 80 TO CHECKI.
50240
50250
                                                                                                                                                                                                                    C90970
50300
                                MOVE ZERO TO KOUNT.
                                                                                                                                                                                                                    C90970
50310
                   CHECK2.
ADD I TU KOUNT.
                                                                                                                                                                                                                    C90970
50320
                                                                                                                                                                                                                    C98970
                   IF ACTION EQUAL TO ACTION-REJ (KOUNT) 60 TO READI.
IF KOUHT IS LESS THAN NO-REJ-ACTION 60 TO CHECK2.
CHECK-S-N-FOR-8-DIGITS.
50330
                                                                                                                                                                                                                    C90970
50340
 50400
                                                                                                                                                                                                                    C90970
                              MOVE SEK-NO TO SER-NO-A.

IF LISTS-S-N [0] NOT EQUAL SPACE 60 TO CHECK-S-N.

MOVE 7 TO KOUNT.

MOVE 8 TO KNT.
50410
                                                                                                                                                                                                                    C90970
                                                                                                                                                                                                                    C90970
50420
50430
50440
                  LOOPI.

MOVE LISTS-S-N [KOUNT] TO LISTS-S-N [KNT].

IF KOUNT EQUAL TO 3 GO TO END-LOOPI.

SUPTRACT 1 FROM KOUNT.

SUPTRACT 1 FROM KNT.
50450
                                                                                                                                                                                                                    C90970
C98970
50460
50470
                                                                                                                                                                                                                    C90970
504A0
                                                                                                                                                                                                                    C98970
50490
                                                                                                                                                                                                                   C90970
50500
                   GO TO LUOP1.
END-LOOP1.
50510
                                                                                                                                                                                                                   C98970
                               MOVE ZERO TO LISTS-S-N [KOUNT].
50520
                                                                                                                                                                                                                   C98970
C90970
50600
                   CHECK-S-N.
                               IF SEM-NO-A IS LESS THAN LOW-S-N 60 TO READI.
IF SEM-NO-A IS GREATER THAN HIGH-S-N 60 TO READI.
50610
50620
                                                                                                                                                                                                                   C90970
                    TEST-S-N.
                                                                                                                                                                                                                   C90970
50700
                               MOVE ZENO TO KOUNT.
                                                                                                                                                                                                                   C90970
C90970
C98970
50720
                   LOOP2.
                               AUD 1 TO KOUNT.

1F SEK-HO-A IS EQUAL TO R-S-N (KOUNT) GO TO READ1.

1F KOUNT IS LESS THAN NO-REJ-A-C GO TO LOOP2.
50730
50 740
50750
                                                                                                                                                                                                                   C90970
50800
                   CAL-DATE.
                              -DATE.
COMPUTE KOUNT > YEAR - 4.

IF KOUNI IS LESS THAN 1 THEN ADD 10 TO KOUPT.

MOVE MUNTH TO KNT.

COMPUTE JUAY > DAY < KDAYS (KNT) < DAY-YEAR (KOUNT).

IF KOUNT EQUAL LEAP-YEAR-68 00 TO LEAP-YEAR.

IF KOUNT EQUAL LEAP-YEAR-72 00 TO LEAP-YEAR.
50810
                                                                                                                                                                                                                   C90970
50020
50830
50840
                                                                                                                                                                                                                   C98978
50850
50860
```

```
GO TO WHITE-OUTPUT.
50870
                                                                                                                                                            C98970
C98970
              LEAP-YEAR.

IF MONTH IS GREATER THAN 2 THEN ADD 1 TO JDAY.
50910
                                                                                                                                                             C98970
              WRITE-OUTPU:

MOVE DAIAB TO DATABOUT,

MOVE SEK-NO-A TO SEK-NO-OUT,

MOVE DAIAS TO DATAS-OUT,

MOVE DAIE-IN TO DATE-OUT.
                                                                                                                                                             C98970
                                                                                                                                                             C98970
C98970
51010
51040
51050
                                                                                                                                                             C98970
                                                                                                                                                             C98970
51060
                       MOVE DATAS TO DATAT-OUT.
MOVE DATAS TO DATAS-OUT.
WRITE OUTDATA.
ADD 1 TO RECORDS-PASS.
GO 10 READI.
 51 090
                                                                                                                                                             C98970
51162
51170
                                                                                                                                                             C98970
                                                                                                                                                             C98970
51180
51190
                                                                                                                                                             C98970
C98970
               BLOCK-CHECK.

COMPUTE KOUNT > RECORDS-PASS - (CRECORDS-PASS / 303 + 383.

IF KOULT EQUAL ZERO BO TO CLOSE-FILES.
52000
                                                                                                                                                             C98970
                                                                                                                                                             C98970
52010
                                                                                                                                                             C98970
52020
              LOUPS.

WRISE OUTDATA FROM NINE.

ADD 1 TO KOUNT.

IF KOUSS IS LESS THAN 30 GO TO LOOPS.
52040
                                                                                                                                                             C98970
52050
                                                                                                                                                             C98970
52060
                                                                                                                                                             C98970
52070
                                                                                                                                                             C98970
C98970
               CLOSE-FILES.
52100
                       CLOSE INFILE WITH LOCK, SC-FLE WITH LOCK.
CLOSE OUTFILE WITH LOCK.
DISPLAY 1 NUMBER OF RECORDS READ : RECORDS-READ
 52110
                                                                                                                                                             C98970
52120
52140
                                                                                                                                                             C98970
                                                                                                                                                             C98970
                       UPON CONSOLE.
DISPLAY: NUMBER OF RECORDS PASSED: RECORDS-PASS
UPON CONSOLE.
52150
                                                                                                                                                             C98970
52160
                                                                                                                                                             C98970
52170
                                                                                                                                                             C98970
                       DISPLAY : EOJ C9897 : UPON CONSOLE.
52180
                                                                                                                                                             C98970
52190
                                                                                                                                                             C98970
              GORACK.

SCHEEN-UATA-IN.

READ SC-FLE AT LND GO TO END-S-D-I.

MOVE DAIA-1 TO A-C-TYPE.

READ SC-FLE AT LND GO TO END-S-D-I.

MOVE DAIA-2 TO HEC-IDENT.

READ SC-FLE AT LND GO TO END-S-D-I.

MOVE DAIA-3 TO HO-REJ-A-C.
53000
53010
                                                                                                                                                             C98970
53020
                                                                                                                                                             C98970
53050
                                                                                                                                                             C98970
C98970
53060
53070
                                                                                                                                                             C98970
53080
                                                                                                                                                             COASTO
                        MOVE ZENO TO KOUNT.
53090
                                                                                                                                                             C98970
             MOVE ZERO TO KOUNT.

S-D-I-1.

ADD 1 TO KOUNT.

REAU SC-FLE AT END GO TO END-S-D-I.

MOVE DATA-4 TO H-S-N (KOUNTI.

IF KOUNT IS LESS THAN NO-REJ-A-C GO TO S-D-I-1.

REAU SC-FLE AT ENU GO TO END-S-D-I.

MOVE DATA-4 TO LOW-S-N.

REAU SC-FLE AT END GO TO END-S-D-I.

MOVE UATA-4 TO HIGH-S-N.

REAU SC-FLE AT END GO TO END-S-D-I.

MOVE UATA-3 TO NO-REJ-HMC.

MOVE ZERO TO KOUNT.
53100
53110
                                                                                                                                                             C98970
C98970
                                                                                                                                                             C98970
53130
                                                                                                                                                             C98970
 53140
                                                                                                                                                             C98970
                                                                                                                                                             C98970
C98970
 53150
53160
                                                                                                                                                             C98970
C98970
53170
53180
53200
53210
                                                                                                                                                             C98970
                        MOVE ZEHO TO KOUNT.
                                                                                                                                                             C98970
              MOVE ZERO TO KOUNT.

S-D-I-2.

ADD 1 TO KOUNT.

REAU SC-FLE AT END GO TO END-S-D-I.

MOVE DAIA-5 TO MOW-MAL-REJ (KOUNT).

IF KOU!!! IS LESS THAN NO-REJ-HMC GO TO S-D-I-2.

REAU SC-FLE AT END GO TO END-S-D-I.

MOVE DAIA-3 TO NO-REJ-ACTION.

MOVE ZERO TO KOUNT.
53220
                                                                                                                                                             C98970
53230
53240
53250
                                                                                                                                                             C98970
                                                                                                                                                             C98970
53260
53300
                                                                                                                                                             C98970
53310
53320
                                                                                                                                                             C98970
                                                                                                                                                             C98970
              S-0-1-3.
ADD 1 TO KOUNT.
                                                                                                                                                             C98970
53330
53340
                       REAU SC-FLE AT END 90 TO END-S-D-I.

MOVE DA1A-2 TO ACTION-REJ (KOUNT).

IF KOUNT IS LESS THAN NO-REJ-ACTION 90 TO S-D-I-3.
                                                                                                                                                             C98970
C98970
53350
53360
53370
53370 IF KOUNT IS LESS THAN NO-REJ-ACTIC
53400 ENU-S-D-I. EXIT.

/* PLACE COBUL SOURCE BEFORE THIS CARD
//CHG.TFGIN DU *.SPACE>CYL,[1:13]
TFG DT01 11 0202080
F106 A-C TYPE
J HECORD IDENT
13 NO REJ A/C
5740033h
                                                                                                                                                             C98970
                                                                                                                                                         1440 CDS
 57000234
 57400239
 57000240
57001543
 57002513
 57002516
 57002519
 57002523
 57002529
 58000795
 59000061
 57000001
 59999999
04
799
                     NO REJ HMC
```

```
812
04
             NO REJ ACTION
.END
/* PI
            PLACE TEG DATA BEFORE THIS CARD
                   DU
                         DISP>EOLD, KEEP, VOL>SER>+F2.UNIT>T+F2.LABEL>E, NLJ
DISP>EOLD, PASSJ
                   00
//TPR.TU22
                                                                                            D22-PASS
//TPR. TPRIN
                   DO
                          +, SPACE>(TRK, [1,1]]
      DTOI
                 10100802080
T/P
      TU22
                 10200902090
6.1.2 66-1 SORT
                  //C98975 EXEC
//CHG, SORTIN
//CHG.SORTOUT
//CHG.SYSIN
                         *,DCB>BLKSIZE>0080,SPACE>CTRK,E1,133
 50RT F1ELUS>E015.008.CH:A.086:004.CH:A.046:005:CH:A.053:003:CH:A.
051:002:CH:A.056:029:CH:A.023:023:CH:A.1:512E>E0050000
                                                                                          C
 MODS EISTEIS, UUB, SORTLIB, NJ, E187E18, 024, SORTLIB, NJ
CT12
                   VOLDSERD(+F1,A+F1,B+F1,C+F1,0+F1,F+F1,G+F1,H+F1,
1+F1,J+F1,K+F1,L+F1,M+F1,N+F1,O+F1,P+F1,G+F1,R+F1,S+F1)
//CHG, TPRIN
                        *, SPACE >[ TRK,[1,1]]
      TU12
                10200902090
           PLACE T/P CONTROL CARDS BEFORE THIS CARD
6.1.3 66-1 MERGE
//C9897M JUB
//C9897 EXEC
                                        :.PRTY>02.TYPRUN>HOLD
                   01 .: G. WANG
                   P9623N, F1ME>10.ACCT>D35323007
                   //CHG.SORTING1
                  DO
                                                                                                     3
//CHG.SORTINO2 DU
                   DCB3/LRECL>U990-RLKS1/ZE>27001,LABEL>L-NSL-RETPD>0011
DU D1SPSC-KEEP],UNITSCT+F7-L-DEFER],DSN>+G,9895405. CT24
VOL>SER>C+F7-A+F7-B+F7-C+F7-D+F7-E+F7-F+F7-G+F7-N+F7-CT24
LFF7-J+F7-K+F7-L+F7-M+F7-N+F7-0+F7-P+F7-G+F7-R+F7-S+F7-CT24
CCB3/LRECL>U0990-RLKSC/ZE>27003-LABEL>C-NSL-RETPD>0011
//CHG. SORTINGS DU
                   DU DISP)( *KEEP]; UNIT)( T+F8; I; DEFER]; DSN)+H, 9895405; CT25
VOL>SER>( +F8; A+F8; B+F8; C+F8; D+F8; E+F8; F+F8; G+F8; H+F8; CT25
I+F8; J+F8; K+F8; L+F8; M+F8; N+F8; O+F8; P+F8; Q+F8; R+F8; S+F8]; CT25
//CHG, SORTINO4
                  //CHG.SORTINGS DD
                                                                                                     3
//CHG.SORTINGS DU
//CHG.SORTING7 DD
//CHG.SORTOUT
 //CHG.SYSIN DO +.DCB) blkS1ZE >0080.SPACE >(TRK.C1.1]]
HERGE FIELDS>( 015.008.CH.A.086.004.CH.A.086.005.CH.A.053.003.CH.A.
051.002.CH.A.056.029.CH.A.023.023.CH.A.)
//CHG, SYSIN
```

6. 1. 4 66-1 ELIMINATE DUPLICATE RECORDS

```
//C9897E JUB
//C9897Z EXEC
//CHG. TU12
                                                                                                  CT12/13 I
                                                                                                  CT12
//
//CHG.TU22
                                                                                                   T12
                                                                                                  CT22/23
                    VOL>SER>[+F5:A+F5:B+A5:C+F5:D+F5:E+F5:F+F5:B+F5:H+F5:
1+F5:J+F5:K+F5:L+F5:M+F5:N+F5:O+F8:P+F5:B+F5:R+F5:S+F5]
DD +:SPACE>(CYL:(1-[])
                                                                                                  CT22
                                                                                                    T22
//CHG.INPUT
                                                                                                    1440 CDS
         COMJINE COMPILE G. WANG.
DATE-WRITTEN. 27 DEC 71.
REMARKS. PRUGRAM SIFTS 66-1 FILE TO ELIMINATE DUPLICATE
ADJACENT RECORDS.
                                                                                                      C98970
00000
                                                                                                       C98970
U1 U50
                                                                                                       C98970
                                                                                                       C98970
01070
02000
         ENVIRONMENT DIVISION
                                                                                                       C98970
02010
         CONFIGURATION SECTION.
                                                                                                       C98970
         SOURCE-COMPUTER. 18M-360.
OUJECT-COMPUTER. 18M-360.
INPUT-OUTPUT SECTION.
                                                                                                       C98970
U2U20
02030
                                                                                                       C98970
                                                                                                       C98970
U2100
         FILE-CONTROL
                                                                                                       C98970
              L-CONTACL.

SELECT INFILE

RESERVE 1 ALTERNATE AREA.

SELECT OUTFILE

RESERVE 1 ALTERNATE AREA.
                                                        ASSIGN TO UT-S-TU12
                                                                                                       C98970
02120
02130
                                                        ASSIGN TO UT-S-TU22
02140
                                                                                                       C98970
                                                                                                       C98970
02150
         DATA DIVISION.
                                                                                                       C98970
10000
         FILE SECTION.
FD INFILE
10010
                                                                                                       C98970
                                                                                                       C98970
10020
               RECORDING MODE IS F
BLOCK CONTAINS 30 RECORDS
10030
                                                                                                       C98970
10040
                                                                                                       C98970
10050
               RECOFO CONTAINS 90
                                                       CHARACTERS
                                                                                                       C98970
               LAPEL RECORDS ARE OMITTED
DATA RECORDS ARE INREC.
INREC PICTURE X(90) SYNC.
10060
                                                                                                       C98970
                                                                                                       C98970
10070
10080
                                                                                                       C98970
               OUTFILE
                                                                                                       C98970
10100
         10110
                                                                                                       C98970
                                                                                                       C98970
10120
                                                                                                       C98970
10140
                                                                                                       C98970
                                                                                                       C98970
10160
                                                                                                       C98970
                                                                                                       C98970
30000
30010
                                                                                                       C98970
                                                                                                       C98970
30020
                                                                                                       C98970
                                                                                                       C98970
30040
30041
                                                                                                       C98970
               RECORDS-PASS SYNC PICTURE 9(7) VALUE ZERO,
KNT COMPUTATIONAL SYNC PICTURE 5999 VALUE ZERO.
30050
                                                                                                       C98970
                                                                                                       C98970
30060
50000
         PROCEDURE DIVISION.
                                                                                                       C98970
50010
         BEGIN.
OPEN INPUT INFILE.
                                                                                                       C98970
                                                                                                       C98970
50020
               OPEN OUTPUT OUTFILE.
MOVE ZERO TO NUMBER-DUPS.
READ INFILE
                                                                                                       C98970
50030
                                                                                                       C98970
50040
50050
               AT END GO TO CLOSE-FILES.
MOVE INHEC TO TEMPREC.
READ INFILE
50060
                                                                                                       C98970
                                                                                                       C98970
50070
50080
                                                                                                       C98970
50090
                    AT END GO TO CLOSE-FILES.
                                                                                                       C98970
50100
         COMPARE.
                                                                                                       C98970
              IF INNEC > TEMPREC GO TO COUNT-DUPS.
WRITE OUTREC FROM TEMPREC.
ADD I TO RECORDS-PASS.
MOVE INNEC TO TEMPREC.
50110
                                                                                                       C98970
50120
                                                                                                       C98970
50125
50130
                                                                                                       C98970
                                                                                                       C98970
50140
               READ INFILE
                                                                                                       C98970
                    AT LND GO TO WRITE-LAST.
50150
               GO TO COMPARE.
50160
50170
                                                                                                       C98970
         COUNT-DUPS.

IF INREC IS EQUAL TO NINES GO TO BLOCK-CHECK.

ADD I TO NUMBER-DUPS.

READ INFILE
                                                                                                       C98970
50175
                                                                                                       C98970
50180
                                                                                                       C98970
50190
                                                                                                       C98970
50200
               AT END GO TO WRITE-LAST. GO TO COMPARE.
                                                                                                       C98970
50210
                                                                                                       C98970
50220
         WRITE-LAST.
                                                                                                       C98970
         WRITE OUTREC FROM TEMPREC.
ADD I TO RECORDS-PASS.
CLOSE-FILES.
50230
                                                                                                       C98970
50235
50240
                                                                                                       C98970
50250
               CLOSE INFILE WITH LOCK.
                                                                                                       C98970
               CLOSE OUTFILE WITH LOCK.
DISPLAY :NO. DUPS : NUMBER-DUPS UPON CONSOLE.
DISPLAY :EOJ 9897 : UPON CONSOLE.
50260
                                                                                                       C98970
50270
                                                                                                       C98970
50280
                                                                                                       C98970
50290
               GOBACK.
         BLOCK-CHECK.
                                                                                                       COAGTO
              COMPUTE KNT > RECORDS-PASS - RECORDS-PASS / 30 + 30. IF KNT IS EQUAL TO ZERO GO TO CLOSE-FILES.
50410
                                                                                                       C98970
50420
                                                                                                       C98970
                                                                                                       C98970
```

```
50440 WRITE OUTREC FROM NINES.

50450 ADD I TO KNT.

50460 IF KNT IS LESS THAN 30 GO TO NINE-FILL.

50470 GO TO CLOSE-FILES.

** PLACE COBOL SOURCE BEFORE THIS CARD

//CHG.TFGIN DU +.SPACE>CYL,[1:1]]

1440 CDS

//TPR,TU12 DD DISP>(OLD, KEEP], VOL, SER>+FI, UNIT>T+FI

//TPR,TU22 DD DISP>(OLD, KEEP], VOL>SER>+FB, UNIT>T+FB

//TPR,TPRIN DD +.SPACE>CTRK,[1:1]]

//TPR,TPRIN DD +.SPACE>TRK,[1:1]]

T/* TU22 ID 1030902090

/* PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

6. 1. 5 66-1 COPY ACCEPTABLE AIRCRAFT

```
7F JOB 01: G. WANG. ::PRTY>02:TYPRUN>HOLD
7G EXEC P9655L:TIME>IO:ACCT>D35323007
TU14 CD DISP>I:KEEP];UNIT>IT+53:1.DEFER];DSN>+C.9895%%0;
VOL>SER>I+F3:A+F3:B+F3:C+F3:D+F3:E+F3:F+F3:6+F3:H+F3:
I+F3:H+F3:K+F3:L+F3:H+F3:N+F3:O+F3:P+F3:G+F3:H+F3:S+F3]
TU22 LU DISP>I:PASS];UNIT>IT+F5:1.DEFER];DSN>+E.9895%%0;
VUL>SER>IT+5:A+F5:B+F5:C+F5:D+F3:E+F5:F+F5:G+F5:H+F5;
INPUT DU 0:SPACE>IC+5:A+F5:M+F5:N+F5:O+F3:P+F3:G+F3:R+F5:S+F5]
INPUT DU 0:SPACE>IC+I:II]
COMUTINE COMPILE G. WANG.
DATE-WRITTEN. 5 JAN 72.
REMARKS.
//19897F JOB
//C9897G EXEC
                                                                                                                                        CT14
T14
                                                                                                                                        CT22
//CHG. TU22
                                                                                                                                         CT22
//CHG. INPUT
                                                                                                                                          1440 CDS
                                                                                                                                               C98970
00000
                                                                                                                                               C98970
             REMARKS.
66-1 COPY ACCEPTABLE AIRCRAFT.
01050
                                                                                                                                               C98970
                                                                                                                                               C98970
01060
             ENVIRONMENT DIVISION. CONFIGURATION SECTION.
                                                                                                                                               C98970
C98970
02000
02010
             CONFIGURATION SECTION.
SOURCE-COMPUTER. IBM-360.
OBJECT-COMPUTER. IBM-360.
INPUT-OUTPUT SECTION.
FILL-CONTHOL.
SELECT INFILE
RESERVE 1 ALTERNATE AREA.
02020
02030
02100
                                                                                                                                               C98970
                                                                                                                                               C98970
                                                                                                                                               C98970
                                                                               ASSIGN TO UT-S-TU14
U2120
U2130
                                                                                                                                               COROTO
                                                                                                                                               C98970
                     SELECT OUTFILE ASSIGN TO UT-S-TU22
RESERVE 1 ALTERNATE AREA.
SELECT ACCEPT-FILE ASSIGN TO DA-S-DT01
U2140
                                                                                                                                               C98970
02150
                                                                                                                                               CGRG70
02160
                                                                                                                                               C98970
             PESERVE 1 ALTERNATE AREA.
                                                                                                                                               C98970
C98970
02170
10000
            FILE SECTION.
FU INFILE
RECOPDING MODE IS F
BLOCK CONTAINS 30 RECORDS
RECOPU CONTAINS 90
 10010
                                                                                                                                               C98970
10100
10120
                                                                                                                                               COASTO
                                                                                                                                               C98970
                                                                                                                                               C98970
C98970
10130
                                                                             CHARACTERS
10140
                    LABEL RECORDS ARE OMITTED
DATA RECORDS ARE INDATA.
INDATA SYNC.
 10150
10160
10170
                                                                                                                                               COROTA
                                                                                                                                               C98970
             01
10178
               U2 DATAB.
03 DATAI
                                                                                                                                               C98970
                                                   PICTURE XX.
PICTURE XE43.
PICTURE XE83.
PICTURE XE83.
IO1A0
                                                                                                                                               C98970
                03 TIPL
                                                                                                                                               C98970
 10190
10200
               US DATA2
                                                                                                                                               C98970
               02 SER-NO
02 DATAS
                                                                                                                                               C98970
10210
 10220
                                                    PICTURE XC183.
10228
                02 DATE-IN.
                                                                                                                                               C98970
               03 DAY
03 MONTH
03 YEAR
10230
                                                    PICTURE 99.
                                                                                                                                               C98970
 10240
                                                    PICTURE 99.
                                                                                                                                               C98970
10250
                02 DATA7.
 10258
                                                                                                                                                C98970
               03 WUC
03 ACTION
                                                    PICTURE XEST.
                                                                                                                                               C98970
C98970
10260
10270
               03 MD
03 HOW-MAL
                                                    PICTURE X.
10290
                                                                                                                                               C98970
C98970
               03 DATA4
03 REC-ID
03 THM
03 DATA5
02 FILLER
 10300
                                                    PICTURE XC273.
                                                    PICTURE X.
10310
                                                                                                                                               C98970
 10320
                                                    PICTURE X.
                                                                                                                                               C98970
10330
                                                    PICTURE X.
PICTURE XXXX.
                                                                                                                                               C98970
C98970
                02 DATA6
                                                    PICTURE X.
                                                                                                                                               C98970
10350
11100
             FU
                     OUTFILE
                                                                                                                                               C98970
                    OUTFILE
RECORDING MODE IS F
BLOCK CUNTAINS 30 RECORDS
RECURD LONTAINS 90
LARLL RECORDS AHE OMITTED
DATA NECORDS ARE OUTDATA.
OUTDATA SYNC.
11120
                                                                                                                                               C98970
11130
                                                                                                                                               C98970
11140
11150
                                                                             CHARACTERS
                                                                                                                                               C98970
                                                                                                                                               COASTO
11160
                                                                                                                                               C98970
11170
11178
             01
                                                                                                                                               C98970
C98970
               02 DATAR-OUT.
               03 DATA1-OUT
03 TYPE-OUT
03 DATA2-OUT
11180
                                                   PICTURE XX.
                                                                                                                                               C98970
                                                   PICTURE XE43.
11190
                                                                                                                                               C98970
                                                                                                                                               C98970
```

```
02 SER-NO-OUT
                                              PICTURE XE83.
                                                                                                                                C98970
11220
11228
             02 DATE-OUT.
                                                                                                                                 C98970
                                              PICTURE 99.
             03 DAY-OUT
                                                                                                                                 C98970
11230
             03 MONTH-OUT
11240
                                                                                                                                 C98970
             03 YEAK-OUT
02 DATA7-OUT.
03 WUC-OUT
03 ACTION-OUT
11250
                                              PICTURE 9
                                                                                                                                 C98970
                                                                                                                                 C98970
11258
                                              PICTURE XE57.
11260
                                                                                                                                 C98970
11270
11280
                                                                                                                                 C98970
             03 WD-OUT
03 HOW-MAL-OUT
                                               PICTURE X.
                                                                                                                                 C98970
11290
                                               PICTURE XXX
                                                                                                                                 C98970
             03 DATA4-OUT
03 REC-1U-OUT
03 THM-OUT
03 DATA5-OUT
                                               PICTURE XE 27 3.
11300
                                                                                                                                 C98970
                                               PICTURE X.
                                                                                                                                 C98970
11310
11320
11330
                                              PICTURE X.
                                                                                                                                 C98970
11340
             02 JDAY
02 DATAS-OUT
0 ACCEPT-FILE
                                               PICTURE 9999.
                                              PICTURE X.
11350
                                                                                                                                 C98970
                                                                                                                                 C98970
11400
                  RECORDING MODE IS F
BLOCK CONTAINS 20 RECORDS
RECORD CONTAINS 80 C
LABEL RECORDS ARE STANDARD
DATA RECORDS ARE ACCEPT-REC.
11410
                                                                                                                                 C98970
                                                                                                                                 C98970
11420
                                                                   CHARACTERS
                                                                                                                                 C98970
11440
                                                                                                                                 C98970
11450
                                                                                                                                 C98970
                  DATA RECORDS ARE ACCEPT-REC.

ACCEPT-HEC SYNC.

02 ACCEPT-DATA PICTURE XC80

02 FILLER REDEFINES ACCEPT-DATA

03 DATA-1 PICTURE 999,

13 FILLER PICTURE XC77
11460
11470
            01
                                                                                                                                 C98970
                                                                   PICTURE XC 801.
                                                                                                                                 C98970
                                                                                                                                 C98970
11480
                                                                                                                                 C98970
11490
11500
                                                                    PICTURE XC771.
           02 FILLER REDEFINES ACCEPT-DATA.
03 DATA-2 PICTURE XE31.
03 FILLER PICTURE XE31.
WORKING-STORAGE SECTION.
11510
                                                                                                                                 C98970
11520
                                                                                                                                 C98970
                                                                   PICTURE XC721.
                                                                                                                                 C98970
30000
                                                                                                                                 C98970
           WORKING-STORAGE
01 NINE SYNC.
02 FILLER
02 FILLER
02 FILLER
30010
                                                                                                                                 C98970
                                              PICTURE XX
PICTURE X(4)
PICTURE X(6)
PICTURE X(6)
PICTURE X(16)
                                                                                     VALUE 1991.
VALUE 199991.
VALUE 1999999991.
VALUE 1999999991.
30020
                                                                                                                                 C98970
                                                                                                                                 C98970
30030
                                             02 FILLER
02 FILLER
30050
                                                                                                                                 C98970
                                                                                                                                 C98970
30060
30070
                                                                                                                                 C98970
                                                                                                                                 C98970
             02 FILLER
30080
             02 FILLER
02 FILLER
                                                                                                                                 C98970
C98970
30090
30100
             02 FILLER
30110
             02 FILLER
02 FILLER
02 FILLER
30120
30130
                                                                                                                                 C98970
                                                                                                                                 C98970
30140
                                              30150
             02 FILLER
                                                                                                                                 C98970
                                                                                                                                 C98970
30160
                                                                                     VALUE 191.
VALUE 191.
VALUE 191.
                                              PICTURE X
30170
                                                                                                                                 C98970
             02 FILLER
02 FILLER
30180
                                                                                                                                 C98970
                                               PICTURE X
30190
                                              PICTURE X
PICTURE Y
PICTURE X
PICTURE X
PICTURE S999 COMPUTATIONAL VALUE 19:,
PICTURE S999 COMPUTATIONAL VALUE ZERO SYNC,
PICTURE 9
PICTURE 9
PICTURE 9
PICTURE 9
PICTURE 9
PICTURE 9161 SYNC VALUE 3.
PICTURE 9161 SYNC VALUE ZERO,
PICTURE 9161 SYNC VALUE ZERO,
PICTURE 9161 SYNC VALUE ZERO,
             02 FILLER
02 FILLER
01 KOUNT
30200
                                                                                                                                 C98970
30210
                                                                                                                                 C98970
30900
            01
01
                                                                                                                                 C98970
30910
                  KNT
                                                                                                                                 C98970
                   LEAP-YEAR-68
30940
                                                                                                                                 C98970
                  LEAP-YEAR-72
RECURUS-READ
RECOPUS-PASS
30950
30970
            01
                                                                                                                                 C98970
                                                                                                                                 C98970
30980
            01
                                                                                                                                 C98970
                   TAPLE-ACCEPT-A-C SYNC. 250 TIMES DEPENDING ON NO-ACCEPT-A-C
40000
            01
                                                                                                                                 C98970
40010
                                                                   PICTURE XEBJ.
PICTURE 999.
PICTURE XEBJ.
PICTURE S999 VALUE <1.
40020
                                                                                                                                 C98970
            01 NO-ACCEPT-A-C SYNC
01 1EMP-ACCEPT-A-C SYNC
01 INC SYNC COMPUTATIONAL
PROCEDUME DIVISION.
OPEN-FILES.
40030
                                                                                                                                 C98970
40040
                                                                                                                                 C98970
40050
                                                                                                                                 C98970
50000
                                                                                                                                  C98970
                                                                                                                                 C98970
50010
                   OPEN INPUT INFILE, ACCEPT-FILE,
OPEN OUIPUT OUTFILE.
PERFORM READ-ACCEPT-DATA THRU END-R-A-D.
50 u20
                                                                                                                                 C98970
                                                                                                                                 C98970
50030
                                                                                                                                  C98970
           READI.

HEAD INFILE

AT END GO TO BLOCK-CHECK.

ADD I TO RECORDS-READ.
50040
                                                                                                                                 C98970
50050
                                                                                                                                 C98970
50060
                                                                                                                                  C98970
                                                                                                                                 C98970
50070
           TEST1.

IF SEM-NO IS LESS THAN TEMP-ACCEPT-A-C 60 TO READ1.

IF SEM-NO IS EQUAL TO TEMP-ACCEPT-A-C 60 TO CAL-DATE.

ADD 1 TO INC.

IF INC 15 GREATER THAN NO-ACCEPT-A-C 60 TO BLOCK-CHECK.

MOVE ACCEPT-A-C [INC] TO TEMP-ACCEPT-A-C.
                                                                                                                                 C98970
50620
50621
                                                                                                                                 C98970
50622
                                                                                                                                 C98970
50623
50624
                                                                                                                                 C98970
50625
                                                                                                                                 C98970
           GO 13 TESTI.
50026
                                                                                                                                 C98970
50800
                                                                                                                                 C98970
                   WRITE OUTDATA FROM INDATA.
ADD 1 TO RECORDS-PASS.
GO 10 READ1.
51180
                                                                                                                                 C98970
51190
                                                                                                                                 C98970
52000
            BLOCK-CHECK.
```

```
COMPUTE KOUNT > RECORDS-PASS - [[RECORDS-PASS / 301 + 30].
                                                                                                                  C98970
C98970
C98970
C98970
C98970
52010
52020
                  IF KOUNT EQUAL ZERO GO TO CLOSE-FILES.
          LOOPS. WRITE OUTDATA FROM NINE.
52040
52050
52060
52070
                 ADD 1 TO KOUNT.
IF KOUNT IS LESS THAN 30 GO TO LOOPS.
          IF KOUNT IS LESS THE CLOSE-FILE WITH LOCK.

CLOSE INFILE WITH LOCK.

CLOSE OUTFILE WITH LOCK.

DISPLAY I NUMBER OF RECORDS READ : RECORDS—READ.

UPON CONSOLE.

DISPLAY I NUMBER OF RECORDS PASSED I RECORDS—PASS UPON CONSOLE.
                                                                                                                   C98970
52100
52110
                                                                                                                  C98970
C98970
C98970
C98970
C98970
52120
52140
52150
52160
52170
                                                                                                                   C98970
                 DISPLAY : EOJ C9897 : UPON CONSOLE.
                                                                                                                   C98970
C98970
52180
52190
                 GOBACK.
           READ-ACCEPT-DATA,
READ ACCEPT-FILE AT END GO TO EMD-R-A-D.
MOVE DATA-I TO NO-ACCEPT-A-C.
70000
                                                                                                                   C98970
                                                                                                                  C98970
C98970
70010
70020
70030
                 MOVE ZENO TO KNT.
                                                                                                                   C98970
          RAD-1.
ADD 1 TO KNT.
READ ACCEPT-FILE AT END 60 TO END-R-A-D.
MOVE DATA-2 TO ACCEPT-A-C (KNT).
IF KNT IS LESS THAN NO-ACCEPT-A-C 60 TO RAD-1.
MOVE ACCEPT-A-C (1) TO TEMP-ACCEPT-A-C.
                                                                                                                  C98970
C98970
70040
 70050
                                                                                                                   C98970
C98970
C98970
70060
70070
70080
70090
                                                                                                                   C98970
          END-R-A-Dr EXIT.
70100
                                                                                                                   C98970
/* PLACE COBOL SOURCE BEFORE THIS CARD
//CHG.TFGIN DD *.SPACE>(CYL.(1.1))
TFG DT01 11 0202080
                                                                                                               1440 CDS
150
57000231
57000232
57000235
57000236
57000237
57000243
57000244
57002455
57002458
57002459
57002463
57002470
57002473
57002476
57002477
571102482
57002483
57002485
57002486
57002490
57002491
57002493
57002494
57002504
57002505
57002508
57002509
57002515
57002517
57002520
57002524
57002527
57002528
57002532
57002533
57002537
57002538
57002540
57002543
57002545
57002546
58000760
58000766
58400767
54000772
58000773
5AU00776
58000777
58000778
58400780
58000781
58000783
58000765
56000786
```

```
59000151
59000152
59000153
59000155
59000157
59000164
4END
/* PLACE TFG DATA BEFORE THIS CARD
//TPR.TU14 DD DISP>COLD*KEEPJ*VOL>SER>+F3*UNIT>T+F3 T14
//TPR.TU22 DU DISP>COLD*KEEPJ*VOL>SER>+F5*UNIT>T+F5 T22
//TPR.TPRIN DD +*SPACE>CTRK*(1*13)
T/P DT01 10200802080
/* PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

65-110 FILE GENERATION PROGRAMS 6.2

6.2.1 65-110 SCREEN

```
O1:: G WANG :.PRTY>02:TYPRUM>HOLD
PYGDSL:TIME>01:ACCT>035323007
DD UISP)(:PAS5):UNIT>(T:F5:1:UEFER):DSM>+E:9895410: C
VOL>SER(:F5):DCGD>(DEM):CEROPTSKP]:LABEL>(:ML)
DU 0:SPACE>(CYL:[1:1])
COMBINE COMPILE 6. WANG.
//C98976 JUB
//C9897H EXEC
//CHG.TU22
                                                                                                                 CT22
//
//CHG.INPUT
                                                                                                                   1440 CDS
00404
                                                                                                                       C98970
01440
           DATL-WRITTEN. 29 DEC 71.
                                                                                                                       C98970
           REMARKS.
01050
                                                                                                                       C90970
                      SCHELN US-110 DATA TAPE.
                                                                                                                       C90970
U1U60
           ENVIRONMENT DIVISION.
02000
                                                                                                                       C90970
           CONFIGURATION SECTION.
SOURCE-COMPUTER. IBM-360.
OBJECT-COMPUTER. IBM-360.
02410
                                                                                                                       C98970
U2U20
                                                                                                                       C98970
u2100
           INPUT-OUTPUT SECTION.
                                                                                                                       C98970
           FILL-CONTHOL.
                                                                                                                       C98970
U211U
                 SELECT INFILE

RESCHVE I ALTERNATE AREA.

SELECT OUTFILE

RESCHVE I ALTERNATE AREA.

SELECT INDATA

RESCHVE I ALTERNATE AREA.
U212U
                                                                 ASSIGN TO UT-5-TU22
U2130
                                                                                                                       C94970
                                                                                                                       C98970
02140
                                                                 ASSIGN TO DA-S-DT02
02150
                                                                                                                       C98970
                                                                                                                       C98970
                                                                 ASSIGN TO DA-S-DT01
                                                                                                                       C98970
U2170
           DATA DIVISION.
10000
           FILE SECTION.
                                                                                                                       C98970
10100
                                                                                                                       C98970
10110
                                                                                                                       C98970
                 HECURULING MODE 15 F
BLOCK CUNTAINS 30 RECORDS
HECURU LONTAINS 80
LABLL PECORDS AND OMITTED
UATA HECONDS AND INREC.
10120
                                                                                                                       C98970
10130
                                                                                                                       C98970
                                                                CHARACTERS
                                                                                                                       C98970
C98970
10150
10160
                                                                                                                       C98970
10170
           01
                  INREC SINC.
                                                                                                                       C98970
             U2 TIPE
U2 DATAL.
10160
                                           PICTURE XC& 1.
10190
                                                                                                                       C98970
                                                              PICTURE XC243,
PICTURE X,
PICTURE XC43,
PICTURE XC53.
                       US FILLER
US MC
US FILLER
10192
                                                                                                                       C98970
10194
                                                                                                                       C98970
10196
                                                                                                                       C98970
10198
                        DA WUC
                                                                                                                       C98970
             U2 SER-NO
U2 DATAS
U2 FILLER
10200
                                           PICTURE XCal.
                                                                                                                       C98970
                                           PICTURE XX.
                                                                                                                       C98970
10210
10212
10214
                                           PICTURE X.
                                                                                                                       C98970
             12 YEAH PICTURE 99.
02 YEAH PICTURE 99.
02 YEAHC REDEFINES YEAH
03 FILLER
03 YEAH1
10420
                                                                                                                       C98970
                                                              PICTURE XX.
10220
                                                                                                                       C98970
                                                                                                                       C98970
                                                              PICTURE X.
10427
                                                                                                                       C98970
10228
             UZ DAY PICTURE UZ DAY REDEFINES DAY
                                           PICTURE 999.
10230
10231
                                                              PICTURE XXX.
10432
                  02 FILLEN HEDEFINES DAY.
                                                                                                                       C98970
                      OS FILLEN
OS DAY2
FILLEN NEOEFINES DAY.
US FILLER
OS DAY1
PICTURE X
                                                               PICTURE A.
                                                                                                                       C98970
                                                                                                                       C98970
                                                              PICTURE 99.
10435
                  u2
                                                              PICTURE XX.
                                                                                                                       C98970
C98970
10236
10237
             UZ DATAS
U OUTFILE
                                           PICTURE XX.
                                                                                                                       C98970
10240
10300
           FU
                                                                                                                       C98970
                 RECORDING MODE IS F
BLOCK CONTAINS 50 RECORDS
                                                                                                                       C98970
10310
10320
                                                                                                                       C98970
                 RECOTO LONTAINS 60
LABLE RECORDS AME STANDARD
DATA MECORDS ARE OUTREC.
                                                                CHARACTERS
10330
                                                                                                                       C98970
                                                                                                                       C98970
10350
                                                                                                                       C98970
                 OUTHLE SYNC.
10370
             02 TYPE-OUT
                                           PICTURE XE41.
                                                                                                                       C98970
10380
             02 DATAL-OUT
                                           PICTURE XC81.
                                                                                                                       C98970
                                                                                                                       C98970
             02 SER-UUT
             02 DATA -- OUT
                                                                                                                       C98970
10400
                                           PICTURE XX.
                                           PICTURE 9999.
PICTURE X.
PICTURE 99.
10410
             02 JOAY-OUT
                                                                                                                       C98970
                                                                                                                       C98970
10430
             02 YEAH-OUT
10440
             92 DAY-OUT
                                           PICTURE 999.
              DATASOUT
IMPATA
MEGGAUIMO MODE IS F
BLOCK CUNTAINS 20 RECORUS
MECURD CONTAINS 80 CHARACTERS
LABEL RECORDS ARE STANDARD
DATA MECORDS ARE DATASIN.
DATASIN SYNC.
02 SCHEEN-DATASIN PICTURE MEBOJ.
02 FILLER REDEFINES SCREEN-DATASIN.
23 DAYASI PICTURE MEGOJ.
24 FILLER PICTURE MEGOJ.
6-1
             02 DATAS-OUT
                                                                                                                       C98970
10450
                                                                                                                       C98970
11000
           FU
                                                                                                                       C98970
11010
11020
11030
                                                                                                                       C98970
                                                                                                                       C96970
11040
                                                                                                                       C98970
11450
11100
           01
                                                                                                                       C98970
11120
                                                                                                                       C98970
```

```
REDEFINES SCREEN-DATA-IN.
PICTURE 99.
PICTURE XI78].
REDEFINES SCREEN-DATA-IN.
PICTURE XI8].
PICTURE XI72].
                     02 FILLER
                                                                                                                                                C98970
11150
                             03 FILLER
                                                                                                                                                 C98970
C98970
11160
              03 FILLER
02 FILLER
03 TAIL-NO
03 FILLER
WORKING-STORAGE SECTION.
                                                                                                                                                 C98970
 11180
 11190
                                                                                                                                                 C98970
                                                                                                                                                 C98970
 11200
                                                                                                                                                C98970
  30000
              01 YEAR-DAYS SYNC.
02 FILLER
 30200
                                                   PICTURE 9999
                                                                              VALUE 365.
VALUE 730.
VALUE 1095.
VALUE 1461.
VALUE 1826.
VALUE 2191.
                                                                                                                                                 C98970
 30210
               02 FILLER
                                                                                                                                                C98970
C98970
 30220
 30230
                02 FILLER
                                                                                                                                                C98970
 30240
 30250
               02 FILLER
02 FILLER
                                                                                                                                                 C98970
                                                                                                                                                C98970
 30260
 30270
                02 FILLER
                                                                                                                                                 C98970
               02 FILLER PICTURE 9999 VALUE 2556.
D1 TABLE-YEAR-DAYS, REDEFINES YEAR-DAYS SYNC.
                                                                                                                                                C98970
 30280
 30300
              01 TABLE-YEAR-DAYS' REDEFINES YEAR-DAYS STML.

02 NDAY' OCCURS 8 TIMES,

PICTURE 9999.

01 RECURDS-READ PICTURE 9999.

01 KOUNT PICTURE 5999 VALUE ZERO COMPUTATIONAL SYNC.

01 ACC-TYPE SYNC PICTURE 91 VALUE ZERO SYNC.

01 A-C-TYPE SYNC PICTURE X[4].

01 HIGH-S-N SYNC PICTURE X[8].

PICTURE X[8].

PICTURE X[8].
                                                                                                                                                C98970
                                                                                                                                                C98970
C98970
 30310
 30320
 30400
              01
                                                                                                                                                 C98970
30410
              01
                                                                                                                                                 C98970
                                                                                                                                                 C98970
              01
              01
                                                                                                                                                C98970
C98970
 30430
              01
 30500
 30510
                                                                                                                                                C98970
 30520
              01
              01 NO-A-C
01 NIN' SYNC.
02 FILLER
                                                            PICTURE 99.
 30540
                                                                                                                                                 C98970
30590
30600
                                   C98970
                                                                                                                                                C98970
               02 FILLER
 30610
                                                                                                                                                C98970
30620
                                                                                                                                                C98970
               02 FILLER
02 FILLER
02 FILLER
02 FILLER
02 FILLER
30630
                                                                                                                                                C98970
                                                                                                                                                C98970
30040
30650
                                                                                                                                                C98970
30060
30670
                                                                                                                                                C98970
 30680
                02 FILLER
                                                                                                                                                C98970
             02 FILLER
02 FILLER
01 TABLE-RLU-S-N SYNC.
02 RLU-S-N OCCURS 25 TIMES DEPENDING ON NO-A-C,
PICTURE XEB J.
30090
30750
                                                                                                                                                C98970
30760
                                                                                                                                                C98970
30770
                                                                                                                                                C08970
31000
                                                                                                                                                C98970
                                                                           PICTURE X.
PICTURE XE53.
PICTURE XE43.
PICTURE X.
31010
31020
                     05 MC-1
05 PERIODIC-INSP
                                                                                                                                                C98970
C98970
                     05 FILLER
05 MC-2
31030
31040
                                                                                                                                                C98970
                     05 HALY-P-F-INSP
                                                                           PICTURE XESJ.
31050
                                                                                                                                                C98970
31060
                                                                                                                                                C98970
             PROCEDURE DIVISION.
50000
                                                                                                                                                C98970
             OPEN-FILES.

OPEN INPUT INFILE, INDATA,

OPEN OUIPUT OUTFILE.

PEFFORM SCREEN-DATA THRU END-S-D.
50010
57020
                                                                                                                                                C98970
                                                                                                                                                C98970
50030
50035
                                                                                                                                                C98970
50040
             READ1.
                                                                                                                                                C98970
50050
                     HEAU INFILE
                                                                                                                                                C98970
                     REAU INFILE
AT END GO TO BLOCK-CHECK.

ADD I TO RECORDS-READ.

IF TIPE IS NOT EQUAL TO A-C-TYPE GO TO READI.

IF JAY IS EQUAL TO ZERO GO TO READI.

IF SER-NO IS EQUAL TO SPACE GO TO READI.

IF SER-NO IS LESS THAN LOW-S-N GO TO READI.

IF SER-NO IS GREATER THAN HIGH-S-N GO TO READI.
50050
                                                                                                                                                C98970
C98970
50v70
50080
                                                                                                                                                C98970
50090
                                                                                                                                                C98970
50100
50110
                                                                                                                                                COASTO
50120
                                                                                                                                                C98970
             SCREEN-S-N.
50200
                                                                                                                                                C98970
                     MO'L ZERO TO KOUNT.
50410
                                                                                                                                                C98970
             REPEAT-IEST.
ADD I TO KOUNT.
50220
                                                                                                                                                C98970
                     IF SER-NO EQUAL TO REJ-S-N [KOUNT] GO TO READI.

IF KOUNT IS LESS THAN NO-A-C GO TO REPEAT-TEST.
50240
                                                                                                                                                C98970
50250
                                                                                                                                                C98970
C98970
50300
             CALCULATE-J-DAY.
                    IF YEARL IS LESS THAN :101 ADD 60 YEAR1 GIVING YEAR.

IF YEARL IS NOT GREATER THAN 1641 GO TO READI.

COMPUTE KOUNT > YEAR - 64.

IF DAYC IS LESS THAN : 10: MOVE DAY! TO DAY.

IF DAYC IS LESS THAN :100! MOVE DAYE TO DAY.

COMPUTE JDAY > DAY < NDAY (KOUNT).

IF WUC IS EQUAL TO SPACE THEN PERFORM INSERT-WUC.
50302
                                                                                                                                                C98970
50305
                                                                                                                                                C98970
50310
50322
                                                                                                                                                C98970
C98970
C98970
50324
50330
50340
                                                                                                                                                C98970
50400
             WRITEL.
                                                                                                                                                C98970
                     MOJE TIPE TO TYPE-OUT.
MCVE DATA1 TO DATA1-OUT.
MOVE SER-NO TO SER-OUT.
MOVE UATA3 TO DATA3-OUT.
MCVE JDAY TO JDAY-OUT.
                                                                                                                                                C98970
50420
50430
50440
50450
                                                                                                                                                 C98970
                     MOVE DATAS TO DATAS-OUT.
                                                                                                                                                C98970
```

```
MOVE YEAR TO YEAR-OUT.

MOVE UAY TO DAY-OUT.

MOVE UAIAS TO DATAS-OUT.

WRITE OUTREC.

ADD 1 TO RECORDS-PASS.

I) RECORDS-PASS IS GREATER THAN 100 GO TO BLOCK-CHECK.

GC TO READI.
50470
                                                                                                                                                    C98970
50480
                                                                                                                                                    C98970
 50490
                                                                                                                                                    C98970
C98970
50500
 50510
                                                                                                                                                    C98970
 50515
                                                                                                                                                    C98970
50520
                                                                                                                                                    C98970
              BLOCK-CHECK.

COMPUTE KOUNT > RECORDS-PASS ~ [(RECORDS-PASS / 50 ] * 50].

IF KOUNT EQUAL ZERO GO TO CLOSE-FILES.
 50600
                                                                                                                                                    C98970
                                                                                                                                                    C98970
50610
 50620
                                                                                                                                                    C98970
              LOOP1.
WRITE OUTREC FROM NINE.
 50640
                                                                                                                                                    C98970
 50650
                                                                                                                                                    C98970
                      ALD 1 TO KOUNT.
IF KOUNT IS LESS THAN 50 THEN 60 TO LOOP1.
                                                                                                                                                    C98970
 50660
                                                                                                                                                    C98970
C98970
 50670
 50800
              CLOSE-FILES.
                      CLOSE INFILE WITH LOCK, INDATA WITH LOCK.
CLOSE OUTFILE WITH LOCK.
DISPLAY: NUMBER RECORDS READ: RECORDS-READ UPON CONSOLE.
DISPLAY: NUMBER RECORDS PASS: RECORDS-PASS UPON CONSOLE.
DISPLAY: EOJ 9897: UPON CONSOLE.
                                                                                                                                                    C98970
C98970
C98970
 50810
 50820
50840
                                                                                                                                                    C98970
C98970
50850
 50860
 50870
                       GOPACK .
                                                                                                                                                    C98970
C98970
              SCREE'I-UATA.
51000
                      READ INDATA AT END GO TO END-S-D.
MJVE UAFA-1 TO A-C-TYPE.
RIAD INUATA AT ENU GO TO END-S-D.
MOVE DATA-2 TO NO-A-C.
MOVE ZERO TO KOUNT.
 51010
51020
                                                                                                                                                    C98970
 51050
                                                                                                                                                    C98970
                                                                                                                                                    C98970
C98970
51060
51070
              S-D-1.
ADD 1 TO KOUNT.
51080
51090
                                                                                                                                                    C98970
                      ADD 1 TO KOUNT.

REAU INDATA AT END GO TO END-S-D.

MOVE TAIL-NO TO REJ-S-N (KOUNT).

IT KOUNT IS LESS THAN NO-A-C GO TO S-D-1.

READ INDATA AT END GO TO END-S-D.

MOVE TAIL-NO TO LOW-S-N.

KEAU INDATA AT END GO TO END-S-D.

MOVE TAIL-NO TO HIGH-S-N.
                                                                                                                                                    C98970
 51100
51110
51120
                                                                                                                                                    C98970
C98970
51130
51140
51150
                                                                                                                                                    C98970
                                                                                                                                                   C98970
C98970
C98970
C98970
51160
                       READ INVATA INTO MC-WUC-REC. AT END SO TO END-S-D.
51170 READ INUATA INTO MC-WUC-REC, AT END SO TO END-S-D.
51190 END-S-D. EXIT.
80000 INSERT-WUC.
80010 IF MC IS EQUAL TO MC-1 THEN MOVE PERIODIC-INSP TO WUC.
90010 IF MC IS EQUAL TO MC-2 THEN MOVE HRLY-P-F-INSP TO WUC.
90010 PLACE COBOL SOURCE BEFORE THIS CARD
90010 GET TFG WANS
110001 019999 REPLACE
90010001 019999 REPLACE
                                                                                                                                                    C98970
                                                                                                                                                    C98970
C98970
                                                                                                                                                1440 CDS
                                                                                                                                               C98970'T
                    11 0202080
A-C TYPE
 TFG DT01
F106
                    NUMBER REJ A-C
 13
 57000234
57000239
 57000240
 57001523
 57002507
 57002513
 57002516
57002519
 57002523
 57002529
 58000795
 59000061
 59000150
                   LOW S-N
HIGH S-N
57000001
 C03400
                    D63300
 *END
 /* PL
//TPR.TU22
                  PLACE TEG DATA BEFORE THIS CARD
                             DD DISPYLOLD, KEEP J, VOL SERS+FB, UNITST+FB, DCB/CDEN>2, TRTCH>ET, EROPT>SKPJ, LABEL > (, NL )
DD +, SPACE > (TRK, [1+1])
                                                                                                                                             CTEE
//
//TPR.TPRIN
T/P DT01
T/P DT02
                         10100802080
                          10200602060
                  PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

6.2.2 65-110 SORT

```
//19897L JUB
//C9897S EYEC
                                                                                                                                                   :.PRTY>02.TYPRUN>HOLD
                                                                        01 .: G. WANG
                                                                       P9622N. w>199, TIME>03. ACCT>035323007
DU DISP>C.KEEP J.UNIT>( T+F5.1. DEFER ).
 //CHG.SORTIN
                                                                                                                                                                                                                                                                                                                                                 CT22
                                                                       DO DISPICACE JOURING TO THE STREET OF THE ST
                                                                                                                                                                                                                                                                                                                                                CT 22
 //CHG.SORTOUT
                                                                        DU DISP>(,KEEP),UNIT>(T+F1,1,DEFER),DSN>+A,9895025,
VOL>SER>(+F1,A+F1,B+F1,C+F1,D+F1,E+F1,F+F1,G+F1,M+F1,
                                                                       DD
                                                                       1+F1/J+F1/K+F1/L+F1/M+F1/N+F1/O+F1/P+F1/O+F1/R+F1/S+F1J/CT12
DCB>CLRECL>U060,BLKSIZE>3000)
DD +,DCB>BLKSIZE>0080,SPACE>CTRK,C1/13
 //CHG.SYSIN
    SORT FILLDS>C 039.008.CH.A.009.004.CH.A.059.001.CH.A.034.005.CH.A.
029.008.CH.A.001.028.CH.A.030.004.CH.A.1.512E>E0500000
     MODS E15>(E15-008-SORTLIB-NJ-E18>(E18-024-SORTLIB-N)
 //C9897P EYEC C9603N.TIME>01.ACCT>035322107
                                                                       DU DISP): (KEEP).UNIT): T+F1.1.DEFER].DSN)+A.9895425.
VOL>SER>: (+F1.A+F1.B+F1.C+F1.D+F1.E+F1.F+F1.G+F1.H+F1.I+F1.J+F1.K+F1.L+F1.M+F1.N+F1.D+F1.P+F1.G+F1.R+F1.S+F1.
  //CHG.TU12
  //CHG.TPRIN
                                                                       DD
                                                                                             *, SPACE>[ TRK,[1,1]]
                                                             10200602060
                       TU12
                                          PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

6.2.3 65-110 MERGE

```
//C9897N JUB
//C9897 EXEC
                                                                                                 01:: G. WANG. :.PRTY>02:TYPRUN>HOLD P9625N::11ME>03:ACCT>035323007
                                                                                                 DU DISPNI (KEEP) (UNIT) (A+F5) 2-UEFER (DSN)+E, 9895425, CT22
VOL>SER) (+F5) A+F5 B+F5 C+F5 D+F5 E+F5 F+F5 G+F5 H+F5, CT22
I+F3 J+F5 K+F5 L+F5 M+F5 N+F5 O+F5 P+F5 O+F5 R+F5 S+F5 CT22
DCH>CLH>CLNU660 (BLKS IZE > 3000 ) (LABEL > CNSL (RETPD> 1991)
 //CHG.SORTINO1
                                                                                                Dil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CT22/23 1
                                                                                                DCB/CLRECL/0060*BLKSIZE/3000]*LABEL/C *NSL*RETPD/099]
DD DISP/C *KLEP]*UNITYC A+F7*2*DEFER]*,DSN/+G,9895%25*, CT2%*,
VOL/SER/C +F7*,A+F7*,B+F7**,C+F7**,D+F7**,E+F7**,G+F7**,G+F7**,G+F7**,G+F7**,G+F7**,CT2%*,GEF/LRECL/0060*BLKSIZE/3000]*LABEL/C *NSL**,RETPD/099]
DD DISP/C *KEEP]**,UNITYC A+F3**,2**,DEFER]**,DSN/+C,9895%30*, CT1%*,VOL/SER/C +F3**,A+F3**,B+F3**,C+F3**,DFF3**,F4F3**,G4F3**,H4F3**,CT1%*,UL/SER/C +F3**,A+F3**,B+F3**,C+F3**,DFF3**,G+F3**,G4F3**,H4F3**,CT1%*,UL/SER/C +F3**,L+F3**,M+F3**,O+F3**,DFF3**,G4F3**,H4F3**,CT1%*,UL/SER/C +F3**,L+F3**,M+F3**,O+F3**,DFF3**,G4F3**,DFF3**,CT1%*,DEB/C *LRECL/0060*BLKSIZE/3000]**,LABEL/C *L
  //CHG, SORTING2 DU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CT24/25 1
 //CHG.SORTINGS DD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CT14/15
                                                                                                DO DISPICHEEP]:UNITYEAFF1:2-DEFER]:DSN>4-3995430; C112
VOL>SER>(+F1.A+F1.B+F1.C+F1.D+F1.E+F1.F+F1.B+F1.H+F1. C112
I+F1.J+F1.K+F1.L+F1.H+F1.N+F1.O+F1.P+F1.Q+F1.R+F1.S+F1.J+C112
DCB>(LRECL>006.0-BLKSIZE>3000)
DO +:DCB>BLKSIZE>0080.SPACE>(TRK,C1.13)
  //CHG.SURTUUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CT12/13 1
//CHG, SYS1.4
      MERGE FIE'DS>(039,008,CH,A,049,004,CH,A,059,001,CH,A,034,005,CH,A,
                                                                                                   029,001,CH,A3
```

6.2.4 65-110 ELIMINATE DUPLICATE RECORDS

```
//C9897P JOB
                                                     :,PRTY>02,TYPRUN>HOLD
                                  WANG
//C9897D JOB
//C9897D EXEC
                         01: G. WANG ::PRTY>02:TYPRUN>HOLD
P9655L:T1ME>10:ACCT>D35323007
                         DU D15P>C+PASS JuNNIT>CT+F1+1+0EFERJ,DSN>+A,9895430+
VOL>SER>C+F1+A+F1+B+F1+C+F1+D+F1+E+F1+F+F1+G+F1+H+F1+
I+F1+J+F1+K+F1+L+F1+M+F1+N+F1+O+F1+P+F1+Q+F1+R+F1+S+F13
//CHG.TU12
                                                                                                                          CT12
                         00 015P>C .PASS 1.UN1T>CT+F3.1.DEFER 1.DSN>+C.9895440.
VOL>SER>C+F3.A+F3.B+F3.C+F3.D+F3.E+F3.F+F3.G+F3.H+F3.
1+F3.J+F3.K+F3.L+F3.H+F3.N+F3.D+F3.P+F3.G+F3.R+F3.S+F3.
//CHG, TU14
                                                                                                                          CTIS
          INPUT DU **, SPACE > (CYL.*[1:1])

COMBINE COMPILE 6. WANS.

DATE-WRITIEN. 27 DEC 71,

RLMARKS. PRUGRAM SIETS 65-110 FILE TO ELIMINATE DUPLICATE
                                                                                                                           1440 CDS
//CHG. INPUT
00000
                                                                                                                               C98970
                                                                                                                               C98970
01060
           ADJACENT RECORDS.
ENVIRONMENT DIVISION,
                                                                                                                               C98970
01070
02000
                                                                                                                               C98970
           CONFIGURATION SECTION,
                                                                                                                               C98970
02010
           SOUNCE-COMPUTER. 18M-360,
ObJECT-COMPUTER. 18M-360.
                                                                                                                               C98970
                                                                                                                               C98970
02030
           INPUT-OUTPUT SECTION.
FILE-CONTROL.
                                                                                                                               C98970
C98970
02100
02110
                  SELECT INFILE
                                                                                                                               C98970
                                                                      ASSIGN TO UT-S-TU12
                  RESURVE I ALTERNATE AREA, SELECT OUTFILE
02130
                                                                                                                               C98970
                                                                                                                               C98970
                                                                      ALSIGN TO UT-5-TU14
02140
                         RESERVE 1 ALTERNATE APEA.
                                                                                                                               C98970
```

```
10000 DATA DIVISION.
10010 FILE SECTION.
10020 FD INFILE
                                                                                                                    C98970
                                                                                                                    C98970
                 INFILE
RECOPDING MODE IS F
BLOCK CONTAINS 50 RECORDS
RECORD CONTAINS 60 CHI
LABEL RECORDS ARE OMITTED
DATA RECORDS ARE INREC.
INREC PICTURE XC60 3 SYNC.
                                                                                                                    C98970
10030
10040
                                                                                                                    C98970
                                                              CHARACTERS
                                                                                                                    C98970
                                                                                                                    C98970
 10060
10070
          OL INREC
10080
                                                                                                                    C98970
10100
                                                                                                                    C98970
                 RECORDING MODE IS F
                                                                                                                    C98970
                 BLOCK CONTAINS 50 RECORDS
RECURD CONTAINS 60
10120
                                                                                                                    C98970
         CHARACTERS
                                                                                                                    C98970
                                                                                                                    C98970
10150
                                                                                                                    C98970
                                                                                                                    C98970
10160
30000
                                                                                                                    C98970
                                                                                                                    C98970
30010
30020
                                                                                               1999999999
                                                                                                                    C98970
30030
30040
                                                                                                                    C98970
                                                                                                                    C98970
C98970
30050
30060
           PLOCEDURE DIVISION.
                                                                                                                    C98970
 50000
          PROCEDURE DIVISION.

BEGIN.

OPEN INPUT INFILE.

OPEN OUTPUT OUTFILE.

MOVE ZERO TO NUMBER-DUPS.

READ INFILE

AT END GO TO CLOSE-FILES.

MOVE INREC TO TEMPREC.

REAU INFILE

AT END GO TO CLOSE-FILES.
50010
                                                                                                                    C98970
50030
                                                                                                                    C98970
50040
                                                                                                                    C98970
                                                                                                                    C98970
 50060
50070
                                                                                                                    C98970
50080
                                                                                                                    C98970
                       AT END GO TO CLOSE-FILES.
 50090
                                                                                                                    C98970
50100
50110
          COMPARE.

IF INHEC > TEMPREC GO TO COUNT-DUPS.
                                                                                                                    C98970
                                                                                                                    C98970
                 MRITE OUTREC FROM TEMPREC.
ADD I TO RECORDS-PASS.
MOVE INNEC TO TEMPREC.
READ INFILE
AT END GO TO WRITE-LAST.
50120
                                                                                                                    C98970
50125
50130
50140
                                                                                                                    C98970
50150
                                                                                                                    C98970
                 GO TO CUMPARE.
50160
                                                                                                                    C98970
50170
           COUNT-DUPS.
                                                                                                                    C98970
                 IF INREC IS EQUAL TO NINES 60 TO BLOCK-CHECK.
 50175
                                                                                                                    C98970
50180
50190
                 ADD 1 TO NUMBER-DUPS. READ INFILE
                                                                                                                    C98970
                 AT END GO TO WRITE-LAST.
50200
                                                                                                                    C98970
50210
                                                                                                                    C98970
50220
           WRITE-LAST.
                                                                                                                    C98970
          WRITE-LAST.

WRITE OUTREC FROM TEMPREC.

ADD I TO RECORDS-PASS.

CLOSE-FILES.

CLOSE INFILE WITH LOCK.

CLOSE OUTFILE WITH LOCK.

DISPLAY :NO. DUPS : NUMBER-DUPS UPON CONSOLE.

DISPLAY :EOJ 9897 : UPON CONSOLE.
50230
50235
                                                                                                                    C98970
50240
50250
                                                                                                                    C98970
 50260
                                                                                                                    C98970
50270
                                                                                                                    C98970
                                                                                                                    C98970
C98970
C98970
C98970
50280
 50290
          B-OCK-CHECK .
50400
          COMPUTE KNT > RECORDS-PASS - RECORDS-PASS / 50 * 50.

IF KNT IS EQUAL TO ZERO GO TO CLOSE-FILES.

NINE-FILL.

WRITE OUTREC FROM NINES.
50410
50420
                                                                                                                    C98970
C98970
C98970
50430
50440
C98970
                                                                                                                 1440 CDS
//TPR. TPRIN
                              *,SPACE>[TRX,[1,133
             10100602060
PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

6. 2. 5 65-110 COPY ACCEPTABLE AIRCRAFT

```
01::G. WANG 1:PHTY>84:TYPRUM>HOLD
P9655L:TIME>05:ACCT>D35323007
DU D1SP>C:PASS J:UN1T>CT+F1:1:DEPER J:DSM>*A:9895436;
VOL>SERY(:F1:A+F1:8+F1:C+F1:D+F1:E+F1:F+F1:G+F1:H+F1:
DU U1SP>C:PASS J:UN1T>CT+F3:1:DEFER J:DSM>*C:9895446;
VOL>SERY(:F1:A+F3:B+F3:C+F3:D+F3:E+F3:F+F3:G+F3:H+F3:
U1SP>C:PASS J:UN1T>CT+F3:1:DEFER J:DSM>*C:9895446;
VOL>SERY(:F1:A+F3:B+F3:C+F3:D+F3:E+F3:F+F3:G+F3:R+F3:S+F3:
//C9897F JOH
//L9897 EXEC
 //CHG. TU12
                                                                                                                           C712
T12
CT14
 //CHG.TUI4
                                                                                                                            CTIA
            NPUT DU ..SPACESECYL.E1.133
COMUINE COMPILE
DATE-WRITTER. 29 DEC 71.
 //CHG. INPUT
                                                                                                                              1440 COS
00000
                                                                                         G. WANG.
                                                                                                                                 C90970
                                                                                                                                 C98970
            PEMARKS.
65-110 COPY ACCEPTABLE AIRCRAFT.
 01050
 01060
             ENVIRONMENT DIVISION.
                                                                                                                                  C98970
 02000
            CONFIGURATION SECTION.
SOURCE-COMPUTER. IBM-360.
OBJECT-COMPUTER. 18M-360.
NPUT-OUTPUT SECTION.
 02010
                                                                                                                                  C98970
 02420
 02030
                                                                                                                                  C98970
                                                                                                                                  C98970
 02100
             TILE-CONTHOL.
                                                                                                                                  C90970
 02110
                   SELECT INFILE
RESERVE I ALTERNATE AREA.
SELECT OUTFILE
                                                                        ASSION 70 U7-5-TU14
 02120
                                                                                                                                  C98970
02130
                                                                                                                                  C98970
                                                                        ASSIGN 70 UT-S-TU12
                    RESERVE 1 ALTERNATE AREA.
SELECT ACCEPT-FILE
RESERVE 1 ALTERNATE AREA.
02150
02160
                                                                        ASSIGN 70 DA-5-0781
                                                                                                                                  C98970
                                                                                                                                  C98970
 02170
             TATA DIVISION.
                                                                                                                                  C98970
 10000
            FILE SECTION.
 10010
                                                                                                                                  COASTO
                                                                                                                                 C98970
 10100
 10110
                                                                                                                                  C99970
                   RECURUING MODE IS F
RECORD CONTAINS 50 RECORDS
RECURD CONTAINS 60
LAREL RECORDS ARE OMITTED
10120
                                                                                                                                  C98970
                                                                                                                                  C98970
                                                                                                                                 C98970
C98970
 10140
                                                                      CHARACTERS
 10150
 10160
                    DATA HECORDS ARE INNEC.
INNEC SYNC.
                                                                                                                                 C98970
 10170
             01
 10160
               02 TIPE
                                               PICTURE XE43.
                                                                                                                                 C98970
                   02 DATAL.
 10190
                                                                                                                                 C98970
                          03 FILLER
03 MC
03 FILLER
03 WUC
                                                                    PICTURE XC243.
                                                                    PICTURE X,
PICTURE XC43.
PICTURE XC53.
 10194
10196
                                                                                                                                 C98970
                                                                                                                                 C90970
                                               PICTURE XE ..
 10200
              02 SER-NO
02 DATAS
                                                                                                                                 C98970
C98970
              02 DATAS PICTURE XX
02 FILLER PICTURE XX
02 OATAM PICTURE XX
02 YEAR PICTURE YP
02 YEAR PICTURE PP
03 FILLER REDEFINES YEAR.
03 FILLER
03 YEARI
 10212
                                               PICTURE XXXX.
                                                                                                                                 C98970
                                               PICTURE X.
 10214
                                                                                                                                 C98970
 10220
 10225
                                                                    PICTURE XX.
                                                                                                                                 C98978
 10226
                                                                                                                                 C98970
C98970
C98978
10227
                                                                   PICTURE X.
PICTURE 9.
              02 DAY PICTURE 999,
02 DAYC REDEFINES DAY
02 FILLER REDEFINES DAY.
10230
10231
                                                                                                                                 C98970
                                                                   PICTURE XXX.
                                                                                                                                 C90970
                         FILLER REDEFINES DAY.
03 FILLER
03 DAY2
10232
10233
                                                                    PICTURE X.
PICTURE 99.
10234
                                                                                                                                 C98978
                         FILLER REDEFINES DAY,
10235
                          03 FILLER
03 DAY1
10236
                                                                    PICTURE XX.
                                                                                                                                 C98970
10237
10240
              UZ DATAS
                                              PICTURE XX.
                                                                                                                                 C98970
            FU
                                                                                                                                 C90970
                  OUTFILE
RECURDING MODE 1S F
BLOCK CONTAINS 50 RECORDS
RECORD CONTAINS 60
LABLL RECORDS ARE OMITTED
DATA RECORDS ARE OUTREC.
10310
                                                                                                                                 COASTO
10320
                                                                                                                                 C98970
                                                                     CHARACTERS
10330
                                                                                                                                 C98970
10340
                                                                                                                                 C98970
C98970
10360
            01
                   OUTHEC SYNC.
                                               PICTURE XC43.
PICTURE XC43.
PICTURE XC43.
10370
                  TYPL-DUT
DATAL-CUT
             02
                                                                                                                                 C98970
                                                                                                                                 C98970
C98970
10390
                   SEP-OUT
                                              PICTURE XX.
10400
              92 DATAS-OUT
             DATA-OUT
                                              PICTURE 9999,
PICTURE X,
PICTURE 99,
PICTURE 999.
10410
                                                                                                                                 C90970
10430
10440
             02 DAY-OUT
                                                                                                                                 C98970
C98970
                                               PICTURE NX.
10450
              02 DATAS-OUT
            FJ ACCLPI-FILE
11400
                                                                                                                                 C98970
11410
11420
11430
                   RECORDING MODE IS F
                                                                                                                                 C98970
                   HLOCK CONTAINS 20 RECORDS
RECURU CONTAINS 80
                                                                                                                                 C98970
                                                                   CHARACTERS
                                                                                                                                 C98970
C98970
                  LAREL RECORDS ARE STANDARD DATA RECORDS ARE ACCEPT-REC. ACCEPT-REC SYNC.
11450
                                                                                                                                 C98970
11460
                                                                                                                                 C98970
                  02 ACCEPT-DATA PICTU
02 FILLER REDEFINES ACCEPT-DAT ..
11470
                                                                                                                                 C98970
                                                                   PICTURE '( 80 ).
11480
```

```
03 DATA-1 PICTURE 999.
03 FILLER PICTURE XC773
02 FILLER REDEFINES ACCEPT-DATA.
03 DATA-2
03 FILLER PICTURE XC723
                                                                             PICTURE 999.
PICTURE XE771.
11490
                                                                                                                                                   C98970
11500
                                                                                                                                                    C98970
 11510
11520
                                                                                                                                                    C98970
                                                                             PICTURE XE723.
                                                                                                                                                    C98970
            WORKING-STORAGE SECTION.

01 YEAR-DAYS SYNC.

02 FILLER PICTURE 9999 VALUE 365.

02 FILLER PICTURE 9999 VALUE 365.

730.

730.

740 FILLER PICTURE 9999 VALUE 1095.
30000
                                                                                                                                                    C98970
30200
                                                                                                                                                    C98970
30210
30220
                                                                                                                                                    C98970
              42 FILLER
C2 FILLER
02 FILLER
02 FILLER
02 FILLER
                                                                                                                                                   C98970
                                                    PICTURE 9999 VALUE 1095.
PICTURE 9999 VALUE 1461.
PICTURE 9999 VALUE 1826.
PICTURE 9999 VALUE 2191.
PICTURE 9999 VALUE 2556.
30240
                                                                                                                                                   C98970
 30250
                                                                                                                                                   C98970
30260
30210
                                                                                                                                                   C98970
               02 FILLER PICTURE 9999 VALUE 2556.
DI TABLE-YEAR-DAYS, REDEFINES YEAR-DAYS SYNC.
DI NDAY, OCCURS 8 TIMES,
30280
             01
30300
                                                                                                                                                    C98970
30310
                                                                                                                                                    C98970
                                                    TIMES,
PICTURE 9999.
PICTURE 9063 VALUE ZERO SYNC.
PICTURE 5099 VALUE ZERO COMPUTATIONAL SYNC.
PICTURE 9063 VALUE ZERO SYNC.
PICTURE 9163 VALUE ZERO SYNC.
30.320
                     RECORDS-READ
30400
                                                                                                                                                   C98970
             01 KOUNT
01 JDAY
01 RECORDS-PASS
01 NINE SYNC.
30410
30420
                                                                                                                                                    C98970
                                                                                                                                                   C98970
               1 NINE SYNC.
30590
                                    30600
                                                                                                                                                   C98970
               02 FILLEH
                                                                                                                                                   C98970
C98970
30010
30020
                                                    02 FILLER
02 FILLER
02 FILLER
                                                                                                                                                   C98970
 30630
                                                                                                                                                   C98970
30640
 30650
                                                                                                                                                    C98970
               02 FILLER
02 FILLER
03 FILLER
30660
                                                                                                                                                   C98970
30670
           0? FILLEN
02 FILLEN
01 TARLE-ACCEPT-A-C SYNC.
02 ACCEPT-A-C OCCURS 250 TIMES DEPENDING ON NO-ACCEPT-A-C
PICTURE XEBJ.
01 NO-ACCEPT-A-C SYNC
01 TEMP-ACCEPT-A-C SYNC
01 TEMP-ACCEPT-A-C SYNC
01 TO SYNC COMPUTATIONAL
PICTURE S999 VALUE <1.
PICTURE S999.
                                                                                                                                                   COAGTO
 30680
                                                                                                                                                   C98970
10400
40000
                                                                                                                                                   C98970
400I0
                                                                                                                                                   C98970
40020
                                                                                                                                                    C98970
40430
40040
                                                                                                                                                   C98970
40050
40060
                                                                                                                                                   C98970
                                                                                                                                                    C98970
50000
                                                                                                                                                   C98970
50 VIO
              OPEN-FILES.
                     OPEN INPUT INFILE, ACCEPT-FILE.
OPEN OUIPUT OUTFILE.
50020
                                                                                                                                                    C98970
50030
                      PERFORM READ-ACCEPT-DATA THRU END-R-A-D.
                                                                                                                                                    C98970
                                                                                                                                                    C98970
             READ1.
50040
                     READ INFILE
50050
                      AT END GO TO BLOCK-CHECK.
ADD I TO RECORDS-READ.
                                                                                                                                                    C98970
                                                                                                                                                    C98970
50070
             TEST1.

IF SER-NO IS LESS THAN TEMP-ACCEPT-A-C 60 TO READ1.

IF SER-NO IS EQUAL TO TEMP-ACCEPT-A-C 60 TO CALCULATE-J-DAY.
50220
50221
                                                                                                                                                    C98970
           IF SEM-NO IS EQUAL TO TEMP-ACCEPT-A-G OF TO CHECOMIE-WADD I TO INC.

IF INC IS GREATER THAN NO-ACCEPT-A-G OF TO BLOCK-CHECK,
MOVE ACCEPT-A-C [INC] TO TEMP-ACCEPT-A-G.

GO TO TEST:

CALCULATE-J-DAY.

IF YEARC IS LESS THAN :10: ADD 60 YEAR! GIVING YEAR.

IF YEARC IS NOT GREATER THAN :64: SO TO READI.

COMPUTE KOUNT > YEAR - 64.

IF DAYC IS LESS THAN : 10: MOVE DAY! TO DAY.

IF DAYC IS LESS THAN :100: MOVE DAY2 TO DAY.

COMPUTE JDAY > DAY < NDAY [KOUNT].
50222
50223
50224
                                                                                                                                                   C98970
                                                                                                                                                    C98970
50225
                                                                                                                                                    C98970
50226
                                                                                                                                                   COROZO
                                                                                                                                                    C98970
50302
50305
50310
                                                                                                                                                    C98970
                                                                                                                                                    C98970
50322
                                                                                                                                                    C98970
50324
50330
50400
             WRITEI.
                     FEI.

MOVE TIPE TO TYPE-OUT.

MOVE DATAI TO DATAI-OUT.

MOVE SEK-NO TO SEH-OUT.

MOVE UATAS TO DATAS-OUT.

MOVE JDAY TO JDAY-OUT.

MOVE JATA4 TO DATA4-OUT.

MOVE YEAR TO YEAR-OUT.

MOVE DATA5 TO DATAS-OUT.

MOVE DATA5 TO DATAS-OUT.

WRITE OUTREC.

ADD I TO RECORDS-PASS.

GO TO READI.

CK-CHECK.
 504I0
                                                                                                                                                    C98970
50420
                                                                                                                                                    C98970
50430
50440
                                                                                                                                                    C98970
50450
50460
                                                                                                                                                    C98970
                                                                                                                                                    C98970
50470
50480
                                                                                                                                                    C98970
 50400
                                                                                                                                                    COROTO
 50500
 50510
                                                                                                                                                    C98970
                                                                                                                                                    C98970
 50520
              BLOCK-CHECK.
 50600
                      COMPUTE KOUNT > RECORDS-PASS - ELRECORDS-PASS / 803 * 803. IF KOUNT EQUAL ZERO 00 TO CLOSE-FILES.
 50610
                                                                                                                                                    COROZA
 50620
                                                                                                                                                    C98970
             WRITE OUTREC FROM NINE.
 50640
 50650
                                                                                                                                                    C98970
              ADD I TO KOUNT.

IF KOUNT IS LESS THAN 50 THEN 60 TO LOOP1.

CLOSE-FILES.
 50660
                                                                                                                                                    C98970
 50800
                                                                                                                                                    C98970
                      CLOSE INFILE WITH LOCK, ACCEPT-FILE WITH LOCK, CLOSE OUTFILE WITH LOCK.
DISPLAY : NUMBER RECORDS READ : RECORDS-READ UPON COMSOLE.
 50810
 50420
                                                                                                                                                    C98970
                                                                                                                                                    C98970
 50640
```

```
DISPLAY : NUMBER RECORDS PASS : RECORDS-PASS UPON CONSOLE. DISPLAY : EOJ 9897 : UPON CONSOLE.
  50850
                                                                                                                                            C98970
  50860
                                                                                                                                           C98970
C98970
              GORACK.

READ-ACCEPT-DATA.

READ ACCEPT-FILE AT END GO TO END-R-A-D.

MOVE DATA-1 TO NO-ACCEPT-A-C.

40VE ZERO TO KNT.
  50870
70000
  70010
                                                                                                                                            C98970
70U40 RAD-1. 2ERO YU KNT.

70U50 ADD 1 TO KNT.

70U60 READ ACCEPT-FILE AT END GO TO END-R-A-D.

70U70 AOVE DATA-2 TO ACCEPT-A-C (KNT).

70U80 IF KNT IS LESS THAN NO-ACCEPT-A-C GO TO RAD-1.

70U90 HOVE ACCEPT-A-C (1] TO TEMP-ACCEPT-A-C.

70U90 END-R-A-D. EXIT.

** PLACE COBOL SOURCE BEFORE THIS CARD

7/CHG.TFGIN DD #, SPACE>(CYL, [1:1])

75U00231
  70020
70030
                                                                                                                                            C98970
                                                                                                                                           C98970
C98970
                                                                                                                                           C98970
C98970
C98970
C98970
C98970
C98970
                                                                                                                                        1440 COS
  57000231
  57000232
  57000235
57000236
  57000237
57000243
  57000244
  57002455
57002456
  57002458
  57002459
  57002463
  57002470
57002473
  57002476
  57002477
57002482
  57002483
  57002485
  57002486
  57002490
  57002491
  57002493
  57002494
  57002496
  57002503
57002504
  57002505
57002508
  57002509
  57002515
  57002517
  57002520
  57002524
  57002528
  57002532
  57002533
  57002537
57002538
  57002540
  57002543
  57002545
 57002546
  58000706
  58000767
  58000773
58000776
  58000777
  58000778
  58000780
  58000781
58000783
  58000785
58000786
  58000788
  58000792
  58000797
 58000900
  58000903
  58000904
  59000002
  59000003
  59000004
  59000005
```

```
59000007
59000008
59000010
59000012
59000015
59000016
59000018
59000019
59000024
59000025
59000026
59000027
59000028
59000030
59000031
59000033
59000035
59000043
59000044
59000046
59000051
59000052
59000053
59000054
59000056
59000057
 59000058
59000059
59000060
59000063
59000064
59000065
59000067
59000069
 59400076
59000078
59001080
59001082
59000384
59000085
 59000090
 59000092
 59000094
59000095
59000096
59000099
59000103
 59000104
59000105
 59000108
 59000109
59000110
 59000115
59000116
59000119
 59000126
59000127
 59000127
59000128
59000130
59000132
59000133
59000137
59000140
 59000141
59000143
59000144
  59000145
 59000146
  59000149
 59000151
59000152
 59000155
59000157
 59000164
•END
 PLACE TFG DATA BEFORE THIS CARD

/**PR.TU12 DU DISP>(OLD.KEEP].VOL>SER>+F1.UNIT>T+F1

//TPR.TU14 OD DISP>(OLD.KEEP].VOL>SER>+F3.UNIT>T+F3

//TPR.TPRIN DO 0.SPACE>CTRK.(1:1)]

T/P D101 1020000200

T/P TU12 JALL000200

/* PLACE T/P CONTROL CARDS BEFORE THIS CARD
                                                                                                      6-20
```

6.3 AIE FILE GENERATION PROGRAMS

6.3.1 AI FORMATTER

```
01:: 6. WANG :.PRTY>02:TYPRUN>HOLD
P9655L:TIME>02:ACCT>D35323007
DD D5N>+P.9895451:SPACE>[CYL,[010:001]]
DD D5N>+P.9895453:SPACE>[CYL,[010:001]]
DD #:SPACE>[CYL,[1:1]]
//19897C JOB
//C9897R EXEC
//CHG. 1U14
//CHG. TU22
                                                                                                                        014-0UT
022-0U7
1440 COS
//CHG. INPUT
           INPUT DD +.SPACES[CYL.f[1.1]]

COMBINE COMPILE 6. WANS.

DATE-WRITTEN. 26 JAN 72.

REMARKS.PHUURAM NAME-AIE CAND DECK FORMATTER[REF. 60CA-AJH71-001
PGS 2-(14-56),//PURPOSE-REAUS AIE CAND DATA SUPPLIED BY SAAMA
AND COPIES RELEVANT DATA FIELDS TO AN OUTPUT TAPE. [1] IDENT
IFY OUTPUT FROM CARD SOURCE. [2]CHG SER TO 8-DIGIT. [3]CONV
ERT DATES TO DAY NUMBERS.

ENVIRONMENT DIVISION,
CONFIGURATION SECTION,
SOURCE-(OMPUTER. IMM-360.
00000
                                                                                                                            C98970
01040
                                                                                                                            C98970
                                                                                                                            C98970
01050
01060
01070
                                                                                                                            C98970
01080
                                                                                                                            C98970
01090
                                                                                                                            C98970
U2U00
                                                                                                                            C98970
02010
                                                                                                                             C98970
           SOUNCE-COMPUTER. IBM-360. OBJECT-COMPUTER. IBM-360.
U2U20
                                                                                                                            C98970
02030
                                                                                                                            C98970
           INPUT-OUTPUT SECTION. FILE-CONTROL.
02100
                                                                                                                             C98970
02110
                                                                                                                            C98970
                  SELECT INCAND
                                                                    ASSIGN TO UT-5-TU14
                                                                                                                            C98970
                  RESERVE I ALTERNATE AREA.
SELECT OUTFILE
RESERVE I ALTERNATE AREA.
SELECT EXCPIFILE
RESERVE I ALTERNATE AREA.
02130
02140
                                                                    ASSIGN TO UT-S-TU22
                                                                                                                            C98970
02150
                                                                                                                            C98970
                                                                    ASSIGN TO DA-S-OTOI
02160
                                                                                                                            C98970
02170
                                                                                                                            C98970
           DATA DIVISION.
10000
           FILE SELTION.
10010
                                                                                                                            C98970
10100
           FU
                 INCARU
                                                                                                                            C98970
                  HECORDING MODE IS F
BLOCK CUNTAINS 30 RECORDS
10120
                                                                                                                            C98970
                                                                                                                            C98970
                  RECURD CONTAINS BU
LABEL RECURDS ARE OMITTED
DATA RECORDS ARE INCARD-AIE.
10140
                                                                   CHARACTERS
10150
                                                                                                                            C98970
                                                                                                                            C98970
                  INCARU-MIE SYNG.
10200
           01
                                                                                                                            C98970
                  U2 FILLER
U2 SEN-2-3
U2 FILLER
U2 SEN-C5
10210
                                                    PICTURE X.
                                                                                                                            C98970
                                                    PICTURE XX.
10220
10/10
                                                                                                                            C98970
                                                    PICTURE X.
10240
                                                                                                                            C98970
                        SEH-C6
SEH-C7
                                                    PICTURE X.
10250
                                                                                                                             C98970
                  02
10260
                                                                                                                            COROTO
                                                    PICTURE X.
                        SEH-CH
10270
                                                                                                                            C98970
                        FILLER
10/80
                  u2
                                                                                                                            C98970
                        CAY-MO-YH.
                                                                                                                            C98970
                  02
10290
                         05 DA
05 MUNTH
                                                    PICTURE 49.
PICTURE XXX.
10500
10310
                                                                                                                            C98970
                                                    PICTURE 49.
PICTURE XX.
10320
                        FILLER
10330
                                                                                                                            C98970
                                                    PICTURE X.
                        HEPURT-CODE
                                                                                                                            C98970
10340
                        FILLER
10350
                  02
                                                                                                                            C98970
10360
                                                                                                                            C98970
                 02 FILLER
10370
                                                    PICTURE XESS 1.
           FU
11100
                                                                                                                            C98970
                  OUTSILE MCCUPULING MODE IS F HLOUK CUNTAINS ON RECORDS RECORD CONTAINS ON CANAL RECORDS ARE OMITTED UATA RECORDS ARE OUTSILE-AIE.
11120
11130
                                                                                                                            C98970
11140
                                                                   CHARACTERS
                                                                                                                            C48970
11150
                                                                                                                            C98970
11160
           01
                  OUTFILE-AIE SYNC.
                                                                                                                            C98970
11200
                                                    PICTURE XESOJ.
                                                                                                                            C98970
11210
                  EXCPTILE
RECORDING MODE IS F
BLOCK CUNTAINS 01 RECORDS
                                                                                                                            C98970
C98970
12100
12120
                  RECOFD CONTAINS 80 C
LABLI RECORDS ANE STANDARD
DATA RECORDS ARE EXCPTFILE-MO.
                                                                   CHARACTERS
                                                                                                                            C98970
                                                                                                                            C98970
12150
12160
12200
                  EXCPIFILE-MO SYNC.
                                                                                                                            C98970
           02 . ILLER
WORKING-STORAGE SECTION.
                                                    PICTURE XEBOJ.
                                                                                                                            C98970
12210
                                                                                                                             C98970
30000
                 NINE STIC.
                                                                                                                            C98970
30030
           01
                                                   30040
                                                                                                                             C98970
30050
                                                                                                                             C98970
                  02 FILLER
30060
                                                                                                                             C98970
30670
30080
            01
                  DAYS-IN-YEAR SYNC.
                                                                                                                             C98970
                                                   PICTURE 999
                                                                               VALUE
                                                                                                                            C98970
                  02 FILLER
02 FILLER
30090
30100
                                                                               VALUE
                                                                                         31.
                                                                               VALUE 59.
30110
                        FILLER
                                                                                                                             C98970
                                                                                                                             C98970
30120
                  02
                        ILLER
                                                                               VALUE 120.
VALUE 151.
VALUE 181.
30130
                  02
                                                                                                                             C98970
                                                                                                                             C98970
                   02
                        FILLER
                                                                                                                             C98970
                   02
                         FILLER
30150
                                                                               VALUE 212
                                                                                                                             C98970
30160
```

```
FILLER
FILLER
                                                 PICTURE 999
PICTURE 999
PICTURE 999
PICTURE 999
                                                                          VALUE 243.
VALUE 273.
VALUE 304.
VALUE 334.
30170
                 02
02
                                                                                                                     C98970
30180
                                                                                                                      C98970
30190
                 02
                       FILLER
                                                                                                                      C98970
30200
                                                                                                                      C98970
30210
           10
                 NO-UAYS-IN-YEAR
                                            REDEFINES DAYS-IN-YEAR SYNC.
                 02 KUAYS OCCURS 12 TIMES
30220
                                                                                                                     C98970
30230
                                                 PICTURE 999.
                                                                                                                     C98970
                 DAYS-IN-YEARS SYNC.
30240
           01
                                                                                                                     C98970
                 02 FILLER
02 FILLER
02 FILLER
                                                 PICTURE 9999
                                                                          VALUE
30250
                                                                                         ٥.
                                                                                                                     C98970
                                                 PICTURE 9999
PICTURE 9999
30260
                                                                          VALUE 365.
                                                                                                                      C98970
                                                                          VALUE
                                                                                     730 .
                                                                                                                     C98970
30270
                      FILLER
                                                 PICTURE 9999
                                                                           VALUE 1095 .
30280
                                                                                                                     C98970
30490
30300
                                                                          VALUE 1461.
VALUE 1826.
                 02
                      FILLER
                                                 PICTURE 9999
                                                                                                                     C98970
                                                 PICTURE 9999
                       FILLER
                                                                                                                     C98970
                 02
30310
                                                 PICTURE 9999
                                                                           VALUE 2191 .
                                                                                                                      C98970
                                                 PICTURE 9999
PICTURE 9999
30320
30330
                 02
                     FILLER
                                                                          VALUE 2556.
VALUE 2922.
                                                                                                                     C98970
                                                                                                                     C98970
30340
30350
                                                 PICTURE 9999
PICTURE 9999
                 02
                       FILLER
                                                                          VALUE 3287
                                                                                                                     C98970
                 02 FILLER
                                                                          VALUE 3652 .
                                                                                                                     C98970
                       FILLER
                                                 PICTURE
                                                                          VALUE 4017.
30 360
                                                                                                                     C98970
                DAY-IN-YEAR-TABLE REDEFINES DAYS-IN-TERMS

02 DAY-YEAR OCCURS 12 TIMES

PICTURE 9999.

KOUNT PICTURE S999 COMPUTATIONAL VALUE ZERO SYNC.

KYEAR PICTURE S999 COMPUTATIONAL VALUE ZERO SYNC.

KYEAR PICTURE S999 COMPUTATIONAL VALUE ZERO SYNC.

DAYS PICTURE S999 COMPUTATIONAL VALUE ZERO SYNC.

OCCUPANTATIONAL VALUE ZERO SYNC.

OCCUPANTATIONAL VALUE ZERO SYNC.
30370
           01
                 DAY-IN-YEAR-TABLE REDEFINES DAYS-IN-YEARS SYNC
                                                                                                                     C98970
30380
                                                                                                                     C98970
30390
                                                                                                                      C98970
                                                                                                                     C98970
30430
           01
                                                                                                                      C98970
                 DAYS PICTURE $99 RECORDS-READ PI
30440
           01
                                                                                                                     C98970
                                                PICTURE 9E63 SYNC VALUE ZERO.
PICTURE 9E63 SYNC VALUE ZERO.
30450
           01
                                                                                                                     C98970
30460
                 RECURUS-PASS
                                                                                                                     C98970
                 GMO-KI-T
                                                 PICTURE 999 SYNC VALUE ZERO.
30470
                                                                                                                     C98970
                 SER-8-DIGIT SYNC.
30500
           01
                                                                                                                      C98970
                                                 PICTURE XX.
PICTURE XX
PICTURE X.
                       POS-1-2
POS-3-4
POS-5
                                                                                                                     C98970
30510
                 02
30520
30530
                                                                          VALUE :00:.
                                                                                                                      C98970
                                                                                                                     C98970
                       P05-6
P05-7
30540
                                                 PICTURE X.
                                                                                                                      C98970
30550
                 02
                                                 PICTURE X.
                                                                                                                     C98970
30560
                       P05-8
                                                 PICTURE X.
30570
           01
                 MONTHS-IN-YEAR SYNC.
                                                                                                                     C98970
                                                PICTURE XXX
                       FILLER
                                                                                                                      C98970
 30580
                 02
                                                                          VALUE :JAN: .
                       FILLER
FILLER
                                                 PICTURE XXX
PICTURE XXX
                                                                          VALUE : FEB! . VALUE : MAR! .
30590
                 02
                                                                                                                      C98970
30600
                                                                                                                      C98970
                                                 PICTURE XXX
PICTURE XXX
PICTURE XXX
30610
                 02
02
                       FILLER
FILLER
                                                                          VALUE : APR: . VALUE : MAY: .
                                                                                                                     C98970
30620
                                                                                                                     C98970
                       FILLER
                                                                           VALUE :JUN: .
30630
                                                                          VALUE :JUL:
VALUE :AUG:
VALUE :SEP:
30640
                 02
                       FILLER
                                                 PICTURE XXX
                                                                                                                     C98970
                                                 PICTURE XXX
                 02
                       FILLER
                                                                                                                     C98970
30650
                                                 PICTURE XXX
PICTURE XXX
PICTURE XXX
PICTURE XXX
                       FILLER
30660
                 02
                                                                                                                     C98970
                                                                          VALUE : OCT:
                                                                                                                     C98970
30670
                 02
 30680
                                                                           VALUE :HOV: .
                 02 FILLER PICTURE XXX VALUE :DEC: NO-MONTHS-IN-YEAR REDEFINES MONTHS-IN-YEAR SYNC.
30590
30700
                                                                                                                     C98970
                                                                                                                     C98970
                02 KMO OCCUM-
OUTFILE-AIE-WORK SYNC.
02 FILLER PICTURE X[9]
n2 WUC-OUT PICTURE X[8]
PICTURE X[8]
30710
                                                                                                                      C98970
30720
                                                                                                                     C98970
34000
                                                                                                                     C98970
                                                                          VALUE SPACE.
VALUE SPACE.
VALUE SPACE.
34010
                                                                                                                     C98970
34020
                                                                                                                     C98970
34030
                                                                          VALUE SPACE.
VALUE SPACE.
VALUE SPACE.
VALUE SPACE.
VALUE SPACE.
VALUE :$ :.
VALUE ZEROS.
VALUE SPACE.
VALUE :$ :.
                        REPURT-CODE-OUT PICTURE X
34040
                                                                                                                     C98970
                                                PICTURE X
PICTURE X(8)
PICTURE X(10)
 4050
                        FILLER
                                                                                                                     C98970
34060
                        SER-8-DIG-OUT
                 02
                                                                                                                      C98970
                        FILLER
                                                                                                                     C98970
                 02
                       DOLLAR-SIGN
DAY-NO
FILLER
RCDMK-O
                                                 PICTURE XX
PICTURE 9843
PICTURE X
34080
                                                                                                                     C98970
34090
                 02
                                                                                                                      C98970
34100
                                                 PICTURE X
34110
                 02
                                                                                                                     C98970
35000
           01
                 EXCPTFILE-WORK-1 SYNC.
                                                                                                                      C98970
                                                 PICTURE X
                                                                          VALUE SPACE.
35010
                 02
                       FILLER
                                                                                                                     C98970
                 02
02
                       RAD-M
                                                 PICTURE XC 25 1
                                                                                                                     C98970
35020
                                                 : UNRECOGNIZABLE MONTH == I.

PICTURE X(A) VALUE SPACE.

PICTURE X(7) VALUE SPACE.

PICTURE X(7) VALUE SPACE.

PICTURE X(36) VALUE SPACE.

PICTURE X VALUE I#I.
 55030
                                                                                                                      C98970
35040
                 02
                       SER-8-D-FYC
                                                                                                                     C98970
35050
                        FILLER
                                                                                                                     C98970
                 02
35060
35070
                        DAY-MO-YR-EXC
                                                                                                                      C98970
                       FILLER
                 02
                                                                                                                      C98970
35080
                        RECHAR
                 EXCPTFILE-WORK-2 SYNC.
02 FILLER PICTURE XE431
35100
           01
                                                                                                                      C98970
                                                                           VALUE SPACE.
                                                                                                                     C98970
35110
35120
                        REC-READ
                                                 PICTURE XE63
                                                                           VALUE IRC-IN>I.
                                                 PICTURE 9063
35130
                        RCDS-IN
                                                                                                                     C98970
                        REC-PASS
                                                                           VALUE I/RCD-OUT>I.
                                                                                                                      C98970
35140
                 02
                       RCUS-OUT
BAD-MONTHS
                                                 PICTURE 9061.
PICTURE X167
PICTURE 9031.
35150
35160
35170
                                                                           VALUE I/0-MO>I.
                 02
                                                                                                                      C98970
                                                                                                                      C98970
                 02
35180
                       RKOMK
                                                 PICTURE X
                                                                           VALUE I#1.
                                                                                                                      C98970
           PROCEDURE DIVISION.
50400
```

```
SOUIO OPEN-FILES.
SOU2O OPEN INPUT INCARD.
SOU3O OPEN OUIPUT OUTFILE.
50U3S OPEN OUIPUT EXCPTFILE.
                                                                                                                                                       C98970
                                                                                                                                                       C98970
C98970
                                                                                                                                                       C98970
C98970
  SOUGH
               READ1.
  50050
                        REAU INLAND
                                      AT END GO TO BLOCK-CHECK.
                                                                                                                                                       C98970
C98970
C98970
  50060
                        ADD I TO RECORDS-READ.
  50070
               TEST-SEN-NO-COLS-S-8.

IF SEN-CS EQUAL SPACE

MOVE ZERO TO SER-C5.
  50080
  Sough
                                                                                                                                                       C98970
                                                                                                                                                       C98970
  50100
                       FOUL ZERO TO SER-CS.

IF SER-L6 EQUAL SPACE
MOVE ZERO TO SER-C6.

IF SER-L7 EQUAL SPACE
MOVE ZERO TO SER-C7.
  50110
                                                                                                                                                       C98970
  50120
  50140
50150
                                                                                                                                                       C98970
                        IF SER-CH EQUAL SPACE
                                                                                                                                                       C98970
                       MOVE ZERO TO SER-C8.
MC/E SER-2-3 TO POS-1-2.
                                                                                                                                                       C98970
C98970
  50160
  50170
               MOVE SEN-C5 TO POS-5.
MOVE SEN-C6 TO POS-6.
MOVE SEN-C6 TO POS-6.
MOVE SEN-C6 TO POS-7.
MOVE SEN-C8 TO POS-8.
DECODE-MONTH.
  50190
                                                                                                                                                        C98970
                                                                                                                                                       C98970
  50200
  50210
                                                                                                                                                       C98970
  50220
  50230
                       MOVE I TO KNY.
  50240
               MO-LOC?
                                                                                                                                                       C98970
  50250
                        IF KMO LKNT J EQUAL MONTH GO TO DATE-TO-DAYS.
                                                                                                                                                       C98970
                        ADD I TO KNT.
IF KNT 15 LESS THAN 13 GO TO MO-LOOP.
  50260
                                                                                                                                                        C98970
  50270
                                                                                                                                                       C98970
                                                                                                                                                       C98970
  50280
                        MOVE SEN-8-DIGIT TO SER-8-D-EXC.
                                                                                                                                                       C98970
 50290
                        MOVE DAY-MO-YR TO DAY-MO-YR-EXC.
  50300
                        ALD 1 TO QMO-KNT.
WPITE EXCPTFILE-MO FROM EXCPTFILE-WORK=1.
  50310
  50320
                                                                                                                                                       COROTO
                        GO TO HEADI.
  50330
                                                                                                                                                       C98970
               GO TO HEADI.

DATE-10-CAYS.

COMPUTE KYEAR > YR - 60.

COMPUTE DAYS > DA < KDAYS [KNT].

IF KYEAH EQUAL 4 GO TO LEAP-YEAR.

IF KYEAH EQUAL 8 GO TO LEAP-YEAR.

IF KYEAH EQUAL 12 GO TO LEAP-YEAR.

GO TO JULIAN-DAYS.
  50400
                                                                                                                                                       C98970
  50410
                                                                                                                                                       C98970
 50430
                                                                                                                                                       C98970
  50440
                                                                                                                                                       C98970
                                                                                                                                                       C98970
C98970
 50450
 50460
 50500
               LEAP-YEAR.
               LEAP-TEAN.

1. KNT 15 LESS THAN 3 GO TO JULIAN-DAYS.

ADD 1 TU DAYS.

JULIAN-DAYS.
 50510
                                                                                                                                                       C98970
                                                                                                                                                       C98970
 50540
                                                                                                                                                       COAGTO
 50550
                       COMPUTE DAY-NO > DAY-YEAR EKYEAR  C DAYS - 1461.
                                                                                                                                                       C98970
               WRITE -OUTPUT.
MOVE WUC TO WUC-OUT.
 51000
                                                                                                                                                       C98970
 51010
                       MOVE WUL TO WUC-OUT.

MOVE REPORT-CODE TO REPORT-CODE-OUT.

MOVE SER-8-DIGIT TO SER-8-DIG-OUT.

WHITE OUTFILE-AIE FROM OUTFILE-AIE-WORK.

ADD 1 TO RECORDS-PASS.
                                                                                                                                                       C98970
 51020
                                                                                                                                                       C98970
                                                                                                                                                       C98970
C98970
 STURB
  510()
 51050
                        GU TO READI.
 51060
                                                                                                                                                       C98970
  52000
                                                                                                                                                       C98970
 52010
                       COMPUTE KOUNT > RECORDS-PASS - [[RECORDS-PASS / 60] + 60].
                       IF KOUNT EQUAL ZERO GO TO WRITE-RECORD-KP.
 52320
                                                                                                                                                       C98970
               LOOPS.
 52040
                                                                                                                                                      C98970
 52050
                       WRITE OUTFILE-ALE FROM NINE.
                       ADD 1 TO KOUNT.
15 KOUNT IS LESS THAN 60 GO TO LOOPS.
 52060
                                                                                                                                                      C98970
                                                                                                                                                      C98970
              WRITE -RECORDS-READ TO RCDS-IN.
MOVE RECORDS-PASS TO RCDS-OUT.
MOVE GMO-KNT TO Q-MOS.
WRITE EXCPTFILE-MO FROM EXCPTFILE-WORK-2.
 52100
 52140
                                                                                                                                                       C98970
 52160
52180
                                                                                                                                                      C98970
                                                                                                                                                      C98970
              CLOSE INCARD WITH LOCK.
CLOSE EXCPTFILE WITH LOCK.
CLOSE OUTFILE WITH LOCK.
DISPLAY: EOJ C9897: UPON CONSOLE.
 54000
 54010
                                                                                                                                                       C98970
 54020
                                                                                                                                                      C98970
C98970
 54030
 54040
                       GOPACK.
 54050
                                                                                                                                                      C98970
PLAZE COROL SOURCE BEFORE THIS CARD

//EHG.TFGIN DD +.SPACES[CYL.(1:1]]

TFG TUIM 11 0302080

56- 456 1MJJN6S A1 13000 A RM MLG FAILURE.ACFT DESTROYED

56- 459 6MARD7 1 75HE1 A SELECTOR VALVE FAILURE

56- 451 176CT65 1 51E00 A ADI MATERIAL FAILURE

56- 451 140MAY67 1 45HB1 A SHORTED FLT MODE CONTROL

56- 462 26JJL67 1 52DE1 A SHORTED FLT MODE CONTROL

56- 463 10MAY67 1 46HB1 A SHORTED FLT MODE CONTROL

56- 465 1170V67 1 45HB1 A SECOND HYD SYS ACCUMULATOR PUMP, FAILURE

57- 232 12JUB5 1 45EMI A ACTUATOR FAILURE PROSE

57- 232 70CT65 1 SIECI A DISPLACEMENT GYRO MALFUNCTION

57-0235 3MAP66 1 46LA1 A PYLON ASSY MATERIAL FAILURE

57-0241 25FEN67 1 14JFI A ACTUATOR FAILURE

57- 243 19JJG66 1 14JRI A SPEED BRAKE 8 DR.G CHUTE LOST
                  PLACE CORUL SOURCE BEFORE THIS CARD
GIN DD +.SPACE>[CYL,(1:1]]
                                                                                                                                                  1440 CDS
```

```
I 75GEL A MB-I EJECTOR RACK MALFUNCTION I 42BAL A DC GENERATOR FAILURE
57-0482 29JUN67
57-0781 11MAY66
57-2303 190106
                                                          A NG DOOR ACTUATOR MATERIAL FAILURE
A LEAKING BRAKE RELAY ABORT
                                      1 13001
1 130H1
57-2431 200CT65
57-2453 22MAR67
                                                          A 'B'NUT FAILURE
A TACAN MALFUNCTION
A MB-I EJECTOR RACK MALFUNCTION
                                      1 45EMI
57-2455 2352P65
57-2456 28J IN67
                                          71C00
75GE1
57-2457 JDEC66
57-2457 22APR69
                                                              BLEED AIR DUCT MATERIAL FAILURE
MAIN GEAR ASSY HOUSING DESTROYED
                                          14EA1
                                    A1 23JB0
 57-2458 285.P65
                                          5IAH1
                                                               AD1 FAILURE
 57-2459 29JUL66
57-2461 1SEP65
                                      1 14JA1
1 51E00
                                                          A LOST SPEED BRAKES AND DRAG CHUTE A ADI FAILURE
57-2461
 57-2461
                                          46CVI
                                                             PILOT FLOAT VALVE MALFUNCTION
                                                         A PILOT FLOAT VALVE MALFUNCTION
A LOST RH SPEED BRAKE
A LH MLG MATERIAL FAILURE EYEBOLT ASSY PN 60248
A RH SPEED BRAKE MAT'L FAILURE
A EYEBOLT ASSY FAILURE MLG
A N-2 COMPRESSOR SECTION FAILURE, ACFT DESTROYED
A QUICK DISCONNECT FAILURE
A QUICK DISCONNECT FAILURE
A GEED LOCKTON MECCHANISM FAILURE
57-2464
                    SEFCA7
                                          14JA1
                                          13HDI
 57-2465
                 21NOV67 A2
                                         14JA1
138A1
57-2467
                   6DEC67
57-2467 16F : 870
57-2469
57-2472
                     705067
                                    A1 23800
                    7.14N6.7
                                         23JA0
 57-2475
                 17JAN67
57-2476 240:T66
57-2478 13APR65
                                      I 13AAF
1 14JA1
                                                          A GEAR LOCKING MECHANISM FAILURE
A LOST SPEED BRAKES AND DRAG CHUTE
 57-2478 3USEP65
                                          SIAJI
                                                              ADI FAILURE
                                                          A ADT FAILURE
 57-2480
                    952P65
                                          51£00
57-2482 27A7R66
                                                          A DC GENERATOR FAILURE
                                          42HA1
                                                          A 056 GENERATOR FAILURE
A ADI FAILURE
                                          42BAI
 57-2462
                    YJUN67
57-2483 135EP65
                                      1 51E00
                                                         A ADI FAILUNE
A SWITCHING GYRO FAILURE
A ADI MATERIAL FAILURE
A DRAG CHUTE MOVABLE JAW MALFUNCTION
A FUEL CONTROL MALFUNCTION
A ADI FAILURE
57-2485 1452P65
57-2487 800T65
                                          51AJ1
                                          STAHT
57-2491 240CT66
                                          93AEA
 57-2492 12JUL65
                                          23HAD
57-2442
                   35.P65
                                          51E00
                                                          A EYEBOLT ASSY FAILURE RH MLG
A CSD OIL STARVATION
A AIR DATA COMP MALFUNCTION
57-2492 11JUN70
                                    AL 13BAT
                  15APR69
 57-2499
                                          235R0
57-2500 27APR65
                                          52000
                                                         A LH FUEL SHUT-OFF VALVE FAILURE
A DISPL GYRO FAILURE
A ADI FAILURE
                                          460A1
57-2500 29h 3V68
 57-2509
                   25EP65
40CT65
                                      1 51EC1
1 51EA1
 57-2514
                                                             THROTTLE TELEFLEX CABLE BENT AIR DATA COMPUTER MALFUNCTION MD—I GYRO REPLACED SWITCH ROLLER MLG MATERIAL FAILURE HOUSING-ELEVON TORQUE TUBE FAILURE
 57-2514 1163669
                                          23NOE
57-2515 26,"JN69
57-2520 75EP65
                                          52CAT
                                      I 51AH1
 57-2520 11SEPU8
                                       1 13EF1
 57-2522 22A JG68
                                      1 14CD1
                                                          A DISPLACEMENT GYRO FAILURE
G MATERIAL MALFUNCTION
A HEP VALVE MALFUNCTION
A MALFUNCTION ATTITUDE INDICATOR
  57-2523 155FP65
                                      I 23HAD
1 23UC1
 57-2526 26NOV65
 57-2526 110-T66
57-2532 250-T65
                                         51AG1
 57-2535
                   500165
                                                          A AD1 FAILURE
                                          51EA1
                                                         A FWD PNEUMATIC SELECTOR VALVE FAILURE
G FWD AIR FLASK MATERIAL FAILURE
A ENGINE EYELID ACTUATOR MALFUNCTION
A MATERIAL FAILURE
A RAT DOOR FELL "OUT
 57-2535
                 1NUV66
                                          7500 I
57-2536 23M.1766
57-2538 1CM1P65
                                    A1 ASEFT
                                          2360H
57-2549 270CT65
57-2543 23JJL68
                                          51AHI
45CHI
                                                         A RAT DOOR FELL TOUT
A HYD HELIEF VALVE
A BROKEN PRI HYD LINE RAT DOOR
A PRIORITY CHECK VALVE
A EJECTOR ASSY FAILURE
A SCAVENGE PUMP FAILURE, ACFT DESTROYED
A ADI MATERIAL FAILURE
A ADI MALFUNCTION
A ADI FAILURE
DC GENERATOR FAILURE
57-2546 IJM 1767
57-2547 10JUN66
                                         INJE1
45CAI
45ECI
58- 040 28MAR69
58- 759 4JANU6 I 46EAA
58- 759 11APR67 A1 23JBC
58- 769 1170CT65
58- 765 8AUG65
58- 766 21J/N65
58- 767 6MAY66
58-0768 25EP69
                                          51E00
                                          51E00
                                                         A AD1 FAILURE
A DC GENERATOR FAILURE
A DC GENERATOR FAILURE
A RH MAIN FUEL SMUT-OFF VALVE PN132305-1 DESTROYED
A MA-1 DIGITAL COMPUTER FAILURE, ACFT DESTROYED
A THIM SWITCH MATERIAL FAILURE
G BELL CRANK FAILURE
G FUEL VALVE DEFECTIVE
A WINSHEILD FAILED
G AFT SELECTOR VALVE MATERIAL FAILURE
A ELEVIC'S PLUMBING MATERIAL FAILURE, ACFT DESTROYED
A MARMAN CLAMP CAME OFF
A MB-1 EJECTOR RACK MALFUNCTION
A FUEL CONTROL MALFUNCTION
A FUEL CONTROL MALFUNCTION
A MATERIAL FAILURE
A STADILITY AUGMENTATION AMPLIFIER FAILED
A LH MLG SIDE BRACE MATERIAL FAILURE
A RH MLG STRUT FAILURE
A CANDPY SEPARATED
A MATERIAL FAILURE—BRAKE RELAY VALVE
                                          51E00
                                          428A1
                                          46uA1
58- 769
58- 773
58- 776
                 1UMAR66
                                          74JE1
                   6M/R65
                                          14GE I
                                          14AC1
58-0779
58- 781
                    1JUN70
                                          23HAD
                    4 A. 7867
                                          TIHAB
758F1
58-0783
                 605C66 I 75UF1
17MAR66 A1 I4U00
I8MAR67 I 4IEA1
58~ 789
58~ 790
58- 902
59-0006
                 601167
17FEB66
                                         75GE1
23HAD
                 280CT65
59- 008
                                          51AHI
59- 009 18J.N66
59- 009 16JIL66
                                   1 52AA1
A1 13AAD
59- 011 10SEP65 A1 13AAA
59- 012 16MAR65 1 11H00
                                                         A CANOPY SEPARATED

A MATERIAL FAILURE-BRAKE RELAY VALVE
G FUEL CONTROL MALFUNCTION

A FLT CONTROL SYS MATERIAL FAILURE
A FWD ACTUATOR MLG FAILURE
A SEC, HYD PUMP FAILED
A LOST SPEED BRAKE AND ACTUATORS
A RELIEF VALVE FAILURE
A ADI MATERIAL FAILURE
A SPETO BRAKE SPARATED FROM ACET
                 202065
                                      I 130H1
59- 014
                                          23HAD
54- 014 24JAN66
59-0014 1UMARU9 A1
                                         14000
59- 021 3NCV68
59-0023 29AUG68
                                         138H1
458F1
59- 026 21NOV68
59- 027 10FLP67
                                          I4JB1
                                          46HA1
                                      I 51E00
I 14JA1
                                                              SPEED BRAKE SEPARATED FROM ACFT
59- 033 18MAR69
```

```
59- 036 4NOV65 I 45A00
59- 036 12JUN67 I 75GE1
59-0040 85TP67 I 14FA1
59- 041 75FR65 A1 13AAA
59- 042 150CT65 I 42AG1
                                      I 45A00
I 75GE1
I 14FA1
                                                          A BHAKE SYSTEM MALFUNCTION
A MU-1 EJECTOR RACK MATERIAL FAILURE
A HYD RUDDER PACKAGE VALVE FAILURE
                                                          A LH MLG STRUT FAILURE, ACFT DESTROYED A FAULTY WIRING
                                                          A PACKIT WINING
A BHAKE RELAY FAILURE
A MATERIAL FAILURE
A ATTITUDE INDICATOR MALFUNCTION
A GYMO FAILURE
59- 044 285LP65
                                       I 130H1
59-044 3N7V65
59-0044 27MAP68
                                       I 14A00
                                       I SILAL
59-0047
                  1APR68
                                       I SILAT
                                                          A LUST SPEED BRAKES AND DRAG CMUTE
G MALFUNCTION FUEL CONTROL
A LOST SPEED BRAKES AND DRAG CMUTE
A LOST SPEED BRAKES
A LIMIT SWITCH FAILURE
A TURN HATE XMTR MALFUNCTION
 59-0052
                    101.06
                                       1 23HAD
1 14JA1
59- 053
                    1.111106
59- 054 3UAUG65
59- 056 23FEB07
59- 057 19ULL67
                                       1 14JR1
                                       1 14JK1
 59- 002 10M/Ro5
                                       1 51E81
                                                          A OIL SCAVENGER PUMP FAIL
A HEP VALVE MALFUNCTION
A ADI MATERIAL FAILURE
A FUEL SHUT-OFF VALVE FAILURE, PN132305-1. DESTROYED
A POS. POTENTIOMETER, A ILERON, DEFECTIVE
59- 065 15MAR65
59-0065 27MAY 70
                                       1 23JED
                                       1 14001
 59- 007 1400165
                                       1 51E00
59-0068 135FP07
59- 074 26JUL68
                                    A1 460A1
I 52AE1
                                                          A PUEL SHUT-OFF VALVE FAILURE, PRIZESOS—IN
A POS, POTENTIONETER, ATLERON, DEFECTIVE
A ADI MATERIAL FAILURE
A ADI MATERIAL FAILURE
A ADI MATERIAL FAILURE
A DI MATERIAL FAILURE
A DISPLACEMENT GYRO FAILURE
A DAMPER AMPLIFIER DEFECTIVE
A LOST SPEED BRAKES
A SECONDARY HYDRAULIC PUMP
A CANOPY SEPARATED FROM ACFT
A NOSE GEAR PISTON, FAILURE
A MAIN OIL PUMP
A LANDING GEAR FAILURE
A MB-1 EJECTOR RACK MATERIAL FAILURE
A LH MLG UPPER CYLINDER MATERIAL FAILURE
A FAILURE MLG ACTUATING CYL
A SELECTOR VALVE MLG INTERNAL FAILURE
A LL SPEED BRAKE CYLINDER FAILURE
A MLG'S FOLDED INDD
A CSD FAILURE
A PITCH-TRIM POTENTIOMETER FAILURE
59- 074 DAUGE8
59- 076 1307165
59- 080 1300765
                                          14FA1
                                          51E 00
59- 082 190CT65
59- 083 50CT65
59-0085 10SEP69
                                       1 51C00
                                          51EC1
                                       1 14AD1
59- 089 22DECU7
                                       1 14JA1
 59- 090 18MARu5
                                          458F1
59- 090 3UJUN65
                    30JUN65 1 11H00
5JUL67 A2 13ACE
 59- 091
57- 092 23JUN65 1 23JBD
59- 096 7JLN70 A2 13000
59- 097 6JUN67
59- 097 6JUN67 I 75GE1
59- 100 16APR70 A1 13AA1
59- 101 8FER68
                                          130E1
59- 101
                   7 AL GLA
                                       1 13BE1
 59- 102 13DFC66
                                          14JF1
59- 104 10NOV66 AZ 45000
59- 109 2JUN67 1 235R0
                                                          A CSO FAILURE
A PITCH-TRIM POTENTIOMETER FAILURE
A SELECTOR VALVE MLG
A DISPLACEMENT GYRO FAILURE
A SPEED BRAKE DOOR & ACTUATOR LOST
G NOSE DOOR OPEN SOLENOID
A MALFUNCTION ATTITUDE IMDICATOR
A BAFFLE PLATE, OIL COOLER
A LOST RH SPEED BRAKE
A ADI FAILURE
A T-BOLT MARMAN CLAMPS FAILURE
 59-0112 18M/R68
                                          52AF1
59-8121 15MAR68
                                          138E1
59- 129 10CT65
59- 133 140CT66
59-0133 15NOV66
                                          SIECI
                                       I 14JB1
                                          44FP1
 59- 133 29DEC68
                                          51EC1
59-0133 300CT69
                                          235RD
59- 134 28NOV67
59- 143 95EP65
                                       1 14JA1
                                          51E00
59- 157 26JUL67
59- 158 29DEC68
59- 159 9MAP65
                                                           A T-ROLT MARMAN CLAMPS FAILURE
A MALFUNCTION ATTITUDE INDICATOR
                                          41800
                                          51EC1
                                                           A HEP VALVE MALFUNCTION
A LH MLG SWICH FAILURE
A MLG SAFETY SWITCH MALFUNCTION
                                           23001
 59- 160 31 JAN67
                                       1 13EJ1
I 13MB1
 59-0161 26MAY69
                                                           A PRESSURE RELIEF VALVE MALFUNCTION
MAINTENANCE
 59- 458
                  MEY67
                                          46HA1
59-0164 21DEC 70
58-0763 17DEC 70
                                          97000
                                                           MATERIAL
                                       1 45000
 50-0458 140EC70
                                           14300
                                                           MAT.
                                                           PILOT
 57-2482 040FC70
                                          13000
 57-2496 USDEC 70
                                                           MATN
                                          23000
 59-0004 25NOV70
59-0081 17NCV70
                                                           PERSONNEL
                                           97000
                                       1 13000
 59-0038 16NOV70
                                                           MAIN
                                           13000
57-2509 12N0V70
59-0031 170CT70
59-0109 080CT70
59-0123 080CT70
                                           13000
                                            75000
                                           93000
 57-2487 295EP70
57-2470 255EP70
59-0060 245EP70
                                           13000
                                       1 14000
                                           23000
 59-0085 155EP70
59-0164 045EP70
59-0155 23AL370
                                           13000
                                           13AG1
58-0903 13AUG70
58-0777 03AUG70
                                                           MAIN
                                       1 45000
                                       1 46000
 58-0776 28JUL70
59-0149 14JL70
58-0772 01JUL70
                                       1 46000
                                           47000
 59-0085 15JUN77
                                       1 13000
                                                           BRAKES
 57-2535 UNJUN70
                                           45000
 58-0779 U1ULN70
                                       I 23HB0
                                                           FUEL VALVE
  59-0016 28MAY 70
                                           93000
59-0016 28MAY 70
59-0065 27MAY 70
57-2401 25MAY 70
57-2549 24MAY 70
58-0902 21MAY 70
59-0059 01MAY 70
58-0782 30AF7 70
                                                           HEP VALVE
                                           14000
                                            93000
                                           93000
                                       1 75000
                                       1 46000
                                                           MATN.
```

DHAG CHUTE

```
57-2967 23APR70
57-0232 22APR70
59-0026 18AFR70
59-0145 17APR70
                             1 14000
                                11000
                                           PILOT
                             1 52000
                                           MAIN
MAIN
SPREED BRAKES
                            1 93000
1 14000
57-2494 16APR70
 59-0241 1JAHR70
59-0129 09AFR70
59-0090 27MAR70
                            1 75000
1 13000
                                           MAIN
58-0453 21MAR70
64-0453 20MAR70
57-0237 17MAR70
59-0028 04MAR70
                            1 93000
                                46000
                                           PILOT
                             1 13000
1 13000
 57-2466 02MAR70
                                            MAT
59-0024 26FE970
                             1 93000
57-2539 25FER70
                             1 13000
                                           MAIN
57-2467 10FER70
56-0453 09FE.170
                             1 13000
                                           MAT
                                           DRAG CHUTE
59-0058 05FE970
59-0131 U1FEP70
59-0161 28JAN70
                                            OPERATOR
                             1 13000
                                           CANOPY
                             1 11000
1 75000
57-2466 27JA.470
59-0063 23JA470
                             1 75000
1 46000
                                           MAT
PER
                             1 93000
1 14000
1 13000
57-2521 21JAN70
59-0103 21JAN70
59-0037 19JAN70
                                            DHAG CHUTE
                                           PER.
57-2538 IIJAN70
                             1 93000
57-0465 U9JAN70
59-0018 21DEC71
                               93000
                                            DRAG CHUTE
 59-0149 16DFC71
                             1 13000
59-0132 150EC71
59-0003 050EC71
                               13AHJ
93AF1
 59-0003 26NCV71
                                93000
                                           DRAG CHUTE
SPEED BRAKES
59-0159 13NOV71
50-0509 10NOV71
                             1 43000
                                            DRAG CHUTE
 59-0463 UTNC V71
                             I LIFDA
                                            MAT
                                            MAIN
 59-0016 04NOV71
                             1 13000
                                           CPU111/2V
FLAMEOUT
 59-0062 08NOV71
                                52FA1
58-0785 200CT71
57-2506 200CT71
58-0781 140CT71
                             1 23000
                                           MAT
MLG SELECTOR VALVE
MAIN
                                13000
 59-0096 U40CT71
                                93000
 59-0046 U40CT71
                                97000
                                            MAIN
59-0091 215FP71
57-2524 155FP71
                               97000
758F1
                                            PILOT
59-0060 U75EP71
59-0005 31ALG71
                                40000
11000
                                            PILOT
 57-0465 035EP71
                                97000
                                            MAIN
59-0158 26AUG71
59-0019 30AUG71
                                            DRAG CHUTE
                               13000
13000
59-0006 18AL371
56-0459 16AUG71
58-0778 3UJUL71
                                23000
                                            MAT
                                           PILOT
PILOT
                                93000
                                12000
 58-0778 30JUL71
57-0460 25JU'.71
                             1 12000
1 13AJ1
                                            PILOT
 59-0160 09JUL71
57-2505 08JUL71
59-0059 06JUL71
                                97000
                                            SUPERVISORY
                             1 14FA1
                                            MAT
                                13000
                                           MAT
56-0458 06JUL71
59-0015 14JUN71
57-2523 11JUN71
59-0091 10JUN71
                                23HAD
                               11000
                                            MAIN
                                            MATH
                               13000
13000
59-0141 26MAY71
58-0778 19MAY71
57-2533 18MAY71
                                93000
23E80
                                            MAIN
                                            MAT
 57-0018 17MAY71
                                13AE1
                                            MAT
59-0071 17MAY71
57-2473 13MAY71
59-0165 30AP771
                                46000
97000
                                            MAT
                                            MAIN
                               23EBC
74K01
                                            MAT
 57-2543 29APR71
                                            MAT
 57-2536 26APR71
                                46000
                                            MAT
59-0143 15APA71
57-2466 15APA71
59-0112 U9APR71
                                46000
                                            MAIN
                                11FCC
                                            MAIN
                                93000
                                            MAIN
 57-2463 24MAH71
 59-0034 11MAP 71
59-0063 09MAP 71
                                93AP1
11000
                                            MAIN
                                            PILOT
 57-2519 UBMAR71
59-0032 01MAH71
                                 52000
                                            MAT
                                13000
75000
58-0707 24FEU71
58-0707 24FEU71
59-0027 22FEP71
56-0465 22FEP71
59-0044 03FEU71
59-0129 02FE771
                                46000
                                           MAIN
                                23000
97000
                                            PERSONNEL
                                23000
14JR1
 58-0785 15JAN71
                                            MAT
                                 47AK1
 59-003H 00JAH71 1 47AK1
                                            PERSONNEL AFTER HUMNER PROPLEM
```

```
5H-09U2 U5AU0/0 A1 136H
5Y-0116 28MAY/0 A1 46HDD
5Y-0100 I6APH70 A1 13A00
5Y-0096 U7JAN70 A2 13000
5Y-0163 3U5EP71 A1 23AA0
57-2544 2YMAK71 A1 14JAH
                                                                                                                                                         HH MLG UOOR SHUTTLE VALVE
WING TANK RELEASE SWITCH
LMG UPPER CYLINDER
                                                                                                                                                          MLG
                                                                                                                                                           P/N 318616
                                                                                                                                                          RH SPEED BRAKE
   .FND
                                                   PLACE TEG DATA BEFORE THIS CARD
14 DD DISPS[OLD.PASS]
22 DU DISPS[OLD.PASS]
21N DD +,SPACE>[TRK,[]:1]]
   /* PL
                                                                                                                                                                                                                                                                                                                                                                                                                           D1G-PASS
D22-PASS
 //IPR.TU22
//IPR.TPRIN
I/P DT01
I/P TU14
I/P TU22
                                                                      10200002080
CD22/23 1
                                                                                       VOL>SER>[+F1:A+F1:B+F1:C+F1:D+F1:E+F1:F+F1:G+F1:H+F1: CT12
1+F1:J+F1:K+F1:L+F1:M+F1:N+F1:O+F1:P+F1:Q+F1:R+F1:S+F1:CT12
CCH>[LRECL>U050:BLKSIZE>3000]
  //CHG.SYSIN DU **DCB>ULKSIZE>0080.SPACE>ETRK.[1,1]]
SORT FIELDS>(025,008,CH,A,045,004.CH,A,010,005,CH,A):SIZE>E0002000
MODS E15>EE.5+008+SORTL18+N]+E18>EE8,024+SORTL18+N]
   //C9897P EXEC C9603N, TIME>01. ACCT>D35323007
                                                 DD DISPERSEPJUNITS THE DOWN A . 9895455 POLICY OF THE DESCRIPTION OF T
   //CHG. TU12
                                                                                                                                                                                                                                                                                                                                                                                                                           T12
   //CHG.TPRIN
                             TU12
```

6.3.2 AIE SCREEN

```
CT14
                                                                                                  D22-0UT
         NPUT DU +,SPACESECYL,[1:1]]
COMBINE COMPILE
DATE-WRITTEH. 14 JAN 72.
//LHG. INPUT
00000
                                                                     G. WANG.
                                                                                                     C98970
01040
                                                                                                     C98970
01040 PREMARKS.
01050 REMARKS.
SCRLENS ALE DATA TAPE.
                                                                                                     C98970
                                                                                                     C98970
         ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOUNCE-COMPUTER. IBM-360.
02000
                                                                                                     C98970
02010
                                                                                                     C98970
02020
                                                                                                     C98970
         SOUNCE-COMPUTER. 18M-360.

OBJECT-COMPUTER. 18M-360.

INPUT-OUTPUT SECTION.

FILE-CONTROL.

SELECT INFILE

RESERVE I ALTERNATE AREA.
02030
                                                                                                     C98970
02100
                                                                                                     C98970
02110
                                                                                                     C98970
                                                        ASSIGN TO UT-S-TU14
02120
                                                                                                     C98970
02130
                                                                                                     C98970
               SELECT OUTFILE
RESERVE I ALTERNATE AREA.
SELECT SCREEN-FILE
RESERVE I ALTERNATE AREA.
02140
                                                        ASSIGN TO UT-S-TURE
                                                                                                     C98970
02150
                                                                                                     COAGTO
                                                        ASSIGN TO DA-S-DT01
                                                                                                     C98970
02170
                                                                                                     C98970
        DATA D.VISION.
10000
                                                                                                     C98970
         FILE SECTION.
10010
                                                                                                     C98970
                                                                                                     C98970
C98970
10100
10110
10120
               RECURDING MODE IS F
BLOCK CONTAINS 60 RECORDS
                                                                                                     C98970
                                                                                                     C98970
               RECOPU CONTAINS 50
LAULL RECORDS ARE OMITTED
DATA RECORDS ARE INREC.
10140
                                                       CHARACTERS
                                                                                                     C98970
10150
                                                                                                     C98970
              INREC SINC.
         0.1
10170
                                                                                                     C98970
10180
           0.2
                                                                                                     C98970
                                     PICTURE XE4].
PICTURE XE4].
PICTURE XE9].
10190
            03
                    DATAB
                                                                                                     C98970
                     TIPL
10200
            0.3
                                                                                                     C98970
                    DATAC
10210
            03
                                                                                                     C98970
10220
           0.2
                    DATE-IN.
                                                                                                     C98970
10230
            03
                     YEAH
                                     PICTURE 9.
                                                                                                     C98970
10240
                    MONTH
                                    PICTURE 99.
            03
                                                                                                     C98970
                    DAY-IN
                                                                                                     C98970
            03
10252
           02
                     CATEGOR REDEFINES DATE-IN PICTURE 9681.
                                                                                                     C98970
10260
                    DATAD.
           02
                                                                                                      C98970
                    DATAE
            03
                                     PICTURE XX.
                                                                                                     C98970
                                    PICTURE X[8].
PICTURE X[12].
PICTURE X[4].
10280
            03
                    S-N
                                                                                                      C98970
                    DATAF
10290
            0.3
                                                                                                      C98970
10300
                    FILLER
                                                                                                     C98970
                                     PICTURE XX.
10310
           02
                    DATAG
                                                                                                     C98970
```

```
11100
           FD OUNFILE
                                                                                                                      C98970
11110
                                                                                                                      C98970
C98970
                 RECORDING MODE IS F
BLOCK CUNTAINS 60 RECORDS
RECORD CONTAINS 50
LABEL RECORDS ARE OMITTED
DATA RECORDS ARE OUTREC.
11130
                                                                                                                      C98970
11140
11150
                                                                CHARACTERS
                                                                                                                      C98970
                                                                                                                      C98970
11160
                                                                                                                      C98970
11170
           01
                 OUTREC SYNC.
                                                                                                                      C98970
                                           PICTURE XC173.
PICTURE 9053.
PICTURE XC223.
                       DATAI
DATE-OUT
 11180
             02
                                                                                                                       C98970
11190
             02
                                                                                                                      C98970
                        DATAS
 11200
             02
                        JUAY
11210
             02
                                           PICTURE 9(4).
                                                                                                                      C98970
                        DATAS
                                                                                                                      C98970
                                           PICTURE XX.
11220
             02
                 SCREEN-FILE
 12000
           FD
12010
                 RECORDING MODE IS F
BLCCK CONTAINS 20 RECORDS
                                                                                                                       C98970
                                                                                                                      C98970
12020
                  RECORD CONTAINS 80
LABEL RECORDS ARE STANDARD
DATA RECORDS ARE SCREEN-REC.
 12030
                                                                CHARACTERS
12040
                                                                                                                       C98970
                                                                                                                       C98970
12050
                  SCFEN-HEC SYNC.
02 SCREEN-DATA
 12060
           01
                                                                                                                       C98970
                                                              PICTURE XEBOJ.
                                                                                                                       C98970
 12070
 12080
                      FILLER REDEFINES SCREEN-DATA.
                                                                                                                       C98970
                        03 DATA-1
03 FILLER
                                                              PICTURE X[4].
PICTURE X[76].
12090
                                                                                                                       C98970
 12100
                                                                                                                       C98970
                        FILLER REDEFINES SCREEN-DATA.

03 DATA-2 PICTURE 99.

03 FILLER PICTURE XC78J.
 12110
                                                                                                                       C98970
                                                                                                                       C98970
12120
                                                                                                                       C98970
                        FILLER REDEFINES SCREEN-DATA.

03 DATA-3

03 FILLER PICTU
12140
                                                                                                                       C98970
12150
                                                              PICTURE XEB ]
 12160
                                                              PICTURE XE723.
                                                                                                                       C98970
           WORKING -STORAGE SECTION.
                                                                                                                       C98970
30000
           01 NINE SYNC.
02 FILLER
                                                                                                                       C98970
 30010
                                           PICTURE X[17] VALUE
:999999999999999999991.
30020
                                                                                                                      C98970
30030
                                                                                                                       C98970
                                           PICTURE 9053
PICTURE X0223
                        FILLER
                                                                    VALUE 99999.
                                                                                                                       C98970
 30040
                                                                                                                       C98970
                        FILLER
                                                                     VALUE
30050
             02
                                               : 99999999999999999999
                                                                                                                       C98970
 30060
                                           PICTURE 9[4]
                                                                    VALUE 9999.
VALUE 1991.
 30070
             02
                        FILLER
                                                                                                                       C98970
                        FILLER
                                                                                                                       C98970
30080
             02
            02 FILLER PICTURE XX
DI DAYS-IN-YEAR SYNC.
02 FILLER PICTURE 999
           10
                                                                                                                       C98970
                                                                              VALUE
                                                                                                                       C98970
30410
                                                                               VALUE 31.
VALUE 59.
                                                                                                                       C98970
                                                                                                                       C98970
304 30
 30440
                                                                               VALUE
                                                                               VALUE 120.
VALUE 151.
 30450
                                                                                                                       C98970
                                                                                                                       C98970
 30460
             02 FILLER
 30470
                                            PICTURE 999
                                                                               VALUE 181.
                                                                                                                       C98970
                                                                               VALUE 212.
VALUE 243.
             02 FILLER
02 FILLER
                                           PICTURE 999
PICTURE 999
 30480
                                                                                                                       C98970
 30490
                                                                                                                       C98970
             02 FILLER
02 FILLER
02 FILLER
                                           PICTURE 999
PICTURE 999
PICTURE 999
                                                                              VALUE 273.
VALUE 304.
VALUE 334.
 30500
                                                                                                                       C98970
                                                                                                                       C98970
 30510
                                                                                                                       C98970
 30520
                NO-JAYS-IN-TEAR . REVEFINES DAYS-IN-YEAR SYNC.
                                                                                                                       C98970
 30530
            01
             02 KDAYS UCCURS 12 TIMES
                                                                                                                       C98970
 30540
                                           PICTURE 999.
 30550
                                                                                                                       C98970
                                                                                                                       C98970
                 DAYS-IN-YEARS SYNC.
 30600
             02 FILLER
02 FILLER
02 FILLER
02 FILLER
02 FILLER
                                           PICTURE 9(4)
PICTURE 9(4)
PICTURE 9(4)
PICTURE 9(4)
PICTURE 9(4)
                                                                              VALUE 365.
VALUE, 730.
VALUE 1095.
VALUE 1461.
 30610
                                                                                                                       C98970
                                                                                                                       C98970
30620
                                                                                                                       C98970
                                                                                                                       C98970
 30640
                                                                                                                       C98970
 30650
                                           PICTURE 9(4)
PICTURE 9(4)
PICTURE 9(4)
             02 FILLER
                                                                               VALUE 1826.
                                                                                                                       C98970
 30660
 30670
             02 FILLER
                                                                               VALUE 2191.
                                                                                                                       C98970
            02 FILLER PICTURE 9(4) VALUE 2336.
01 DAY-IN-YEAR-TABLE REDEFINES DAYS-IN-YEARS STNC.
02 DAY-YEAR OCCURS 8 TIMES PICTURE 9(4).
01 KOURT PICTURE 999 COMPUTATIONAL VALUE ZERO SYNC.
01 KNY PICTURE S999 COMPUTATIONAL VALUE ZERO SYNC.
PICTURE X68].
                                                                                                                       C98970
 30680
                                                                                                                       C98970
 30690
 30700
                                                                                                                       C98970
 30710
                                                                                                                       C98970
 30900
           01
                                                                                                                       C98970
 30910
                                                                                                                       C98970
           01
 30920
                                                                                                                       C98970
                                                              PICTURE XEBS.

SYNC VALUE 4.

SYNC VALUE 6.

PICTURE XEBS.

SINC VALUE ZERO.

SINC VALUE ZERO.
                                                                                                                       C98970
 30930
           01
                  H1GH-5-1
                  LEAP-YEAR-68
 30940
                                                                                                                       C98970
                                           PICTURE 9
           01
                 LEAP-YEAR-68
LEA, -YEAR-72
TYPT-A-U
RECURUS-READ
RECUPUS-PASS
 30950
            01
                                            PICTURE 9
                                                                                                                       C98970
                                                                                                                       C98970
 30460
            01
 30470
            01
                                            PICTURE 9061
                                                                                                                       C98970
 30980
            01
                                            PICTURE 9(6)
                                                                                                                       C98970
                  NO-LEJ-A-C PICTURE 99.
REJ-S-N SYNC.
02 R-S-N OCCURS 25 TIMES DEPENDING ON NO-REJ-A-C.
                                                              PICTURE 99.
                                                                                                                       C98970
 30990
            01
31140
31150
                                                                                                                       C98970
                                                                                                                       C98970
                                                                                                                       C98970
                                                               PICTURE XEBJ.
 31160
 50000
                                                                                                                       C98970
            PROCEDUIE DIVISION.
                 N-FILES.
OPEN INPUT INFILE, SCREEN-FILE, OUTPUT OUTFILE.
                                                                                                                       C98970
 50010
 50020
                                                                                                                       C98970
                                                                                                                       C98970
C98970
 50 U 30
                  PER, ORM SCREEN-IN THRU END-SC-IN.
50100
            READ-INPUT.
                  HEAD INFILE
                                                                                                                       C98970
 50110
```

```
AT END GO TO BLOCK-CHECK.

ADD 1 TO RECORDS-READ.

IF TIPE 1S NOT EQUAL TO TYPE-A-C THEN GO TO READ-INPUT.

IF DAY-IN 1S LESS THAN 1 THEN GO TO READ-INPUT.

IF S-N 1S LESS THAN LOW-S-N THEN GO TO READ-INPUT.

IF S-N 1S GREATER THAN HIGH-S-N THEN GO TO READ-INPUT.

MOVE ZERO TO KOUNT.
  50120
                                                                                                                                                                                                                                        C98970
  50130
                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                         C98970
  50140
 50150
50160
                                                                                                                                                                                                                                       C98970
C98970
  50170
                                                                                                                                                                                                                                        C98970
 50190
50200
                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                       C98970
                                  ADD 1 TO KOUNT.

1F '-N 1S EQUAL TO R-S-N [KOUNT] GO TO READ-INPUT.

IF KOUNT 1S LESS THAN NO-REJ-A-C GO TO LOOP1.
  50210
                                                                                                                                                                                                                                         C98970
  50220
                                                                                                                                                                                                                                       C98970
  50230
                                                                                                                                                                                                                                       C98970
                       CAL-DATE.
  50300
                                                                                                                                                                                                                                        C98970
                                   COMPUTE KOUNT > YEAR - 4.

1F HOUNT IS LESS THAN 1 THEN ADD 10 TO KOUNT.

MOVE MONTH TO KNT.
                                                                                                                                                                                                                                       C98970
 50320
 50 5 30
                                                                                                                                                                                                                                       C98970
                                  COMPUTE JUAY > DAY-IN < KDAYS (KNT) < DAY-YEAR (KOUNT).

1F. OUNT EQUAL TO LEAP-YEAR-68 THEN GO TO LEAP-YEAR.

1F KOUNT EQUAL TO LEAP-YEAR-72 THEN GO TO LEAP-YEAR.

GO TO WHITE-OUTPUT.
 50340
                                                                                                                                                                                                                                       C98970
                                                                                                                                                                                                                                       C98970
 50360
                                                                                                                                                                                                                                       C98970
C98970
 50370
  50400
                      LEAP-YE.
                                   IF MONTH IS GREATER THAN 2 THEN ADD 1 TO JDAY.
 50410
                      WRITE-OUTPUT.

MOVE DATAA TO DATA1.

MOVE DATAA TO DATA2.

MOVE DATAG TO DATA2.

MOVE DATAG TO DATA3.
 50500
                                                                                                                                                                                                                                       C98970
 50510
                                                                                                                                                                                                                                       C98970
 50520
                                                                                                                                                                                                                                       C98970
 50530
 50540
                                   WRI.E OUTREC.
ADD 1 TO RECORDS-PASS.
GO TO READ-INPUT.
 50550
                                                                                                                                                                                                                                       C98970
 50560
50570
                                                                                                                                                                                                                                       C98970
                                                                                                                                                                                                                                       C98970
                      BLOCK-CHECK.

COMFUTE KOUNT > RECORDS-PASS - ([RECORDS-PASS / 60] + 60].

1F KOUNT 1S EQUAL TO ZERO 00 TO CLOSE-FILES.
 50600
                                                                                                                                                                                                                                       C98970
                                                                                                                                                                                                                                       C98970
C98970
 50610
 50620
                       LOOP2.
 50030
                                                                                                                                                                                                                                       C98970
  50640
                                   WRI.E OUTREC FROM NINE.
                                                                                                                                                                                                                                       C98970
                                   ADD 1 TO KOUNT.
1F KOUNT 15 LESS THAN 60 GO TO LOOP2.
 50050
                                                                                                                                                                                                                                       C98970
 50060
                                                                                                                                                                                                                                       C98970
                      THE KOUNT IS LESS THAN BU OU TO LOUPZ.

CLOSE THETLE WITH LOCK.

CLOSE OUTFILE WITH LOCK.

DISPLAY: NUMBER OF RECS-READ: RECORDS-READ UPON CONSOLE.

DISPLAY: NUMBER OF RECS-PASS: RECORDS-PASS UPON CONSOLE.

DISPLAY: EOJ 9897: UPON CONSOLE.
 50700
                                                                                                                                                                                                                                       C98970
 50710
                                                                                                                                                                                                                                       C98970
50720
50740
                                                                                                                                                                                                                                       C98970
                                                                                                                                                                                                                                       C98970
 50750
                                                                                                                                                                                                                                       C98970
 50760
                                                                                                                                                                                                                                       C98970
                                   GOBACK.
 50770
                                                                                                                                                                                                                                       C98970
 50800
                       SCREEN-IN.
                                                                                                                                                                                                                                       C98970
                                  REAL SCHEEN-FILE AT END GO TO CLOSE-FILES.
MOVE UATA-1 TO TYPE-A-C.
READ SCHEEN-FILE AT END GO TO CLOSE-FILES.
MOVE UATA-2 TO NO-REJ-A-C.
 50810
                                                                                                                                                                                                                                       C98970
 50820
                                                                                                                                                                                                                                       C98970
 50830
 50840
                                                                                                                                                                                                                                       C98970
 50400
                                   MOVI ZERO TO KOUNT.
                                                                                                                                                                                                                                       C98970
 50410
                      5-1-1.
                                                                                                                                                                                                                                       C98970
                                   ADD 1 TO KOUNT.
 50920
                                 ADO 1 TO KOUNT.

HEAD SCHEEN-FILE AT END 00 TO CLOSE-FILES.

MOVE UATA-3 TO R-S-N (KOUNT).

IF KOUNT IS LESS THAN NO-REJ-A-C 60 TO S-I-1.

READ SCHEEN-FILE AT END 60 TO CLOSE-FILES.

MOVE DATA-3 TO HOW-S-N.

READ SCHEEN-FILE AT END 60 TO CLOSE-FILES.

MOVE DATA-3 TO HIGH-S-N.
                                                                                                                                                                                                                                       C98970
 50930
                                                                                                                                                                                                                                       C98970
 50740
                                                                                                                                                                                                                                      C98970
 50950
 50960
                                                                                                                                                                                                                                       C98970
 5097
                                                                                                                                                                                                                                       C98970
 50980
                                                                                                                                                                                                                                       C98970
 50990
                                                                                                                                                                                                                                       C98970
FIGOR DIOL 11 0202080

FIGOR DIOL 11 0202080

FIGOR DIOL 12 0202080
                                                                                                                                                                                                                                       C98970
                                                                                                                                                                                                                                 1440 CDS
                               NO REJ A/C
 57000234
57000239
 57000240
57001523
57002507
 57002513
57002516
57 02519
 57002523
57002529
58000795
 59000061
59000150
 57000001
59993999
 ONS
                           PLACE TFG DATA BEFORE THIS CARD

UD DISPOSITION DISPOS
/* PL/
                                                                                                                                                                                                                                T14
D22-PASS
 //TPR.TU22
//TPR.TPRIN
T/P DT01
                                        10100802080
                                        1050050Z050
1020050Z050
               TU14
                            PLACE TIP CONTROL CARDS BEFORE THIS CARD
```

6. 3. 3 AIE SORT

```
//C9897R EXEC P9642N. #>010.TIME>01.ACCT>D35323007
                  UD DSN>+P.9895953+DISP>COLD.DELETE 1.
PCH>CLPCL>0050+BLKSIZE>30001+LABEL>C+NSL+RETPD>0001
//CHG.SORTIN
                                                                                       CD22/23 1
//CHG.SORTOUT
                  DU
                  DU DISP>C.KEEP],UNIT>CT+F1.1.DEFER],DSN>+A.9895455,
VUL>SER>C+F1.A+F1.8+F1.C+F1.D+F1.E+F1.F+F1.G+F1.H+F1.
                                                                                       CT12
                   +F1.J+F1.K+F1.L+F1.M+F1.N+F1.0+F1.P+F1.Q+F1.R+F1.S+F13.CT12
                  DCB>CLRECL>U050.BLKSIZE>30001
DU *,DCB>BLKSIZE>0080.SPACE>(TRK,(1,1))
//CHG.SYSIN
       FIELDS>[ U25, 008, CH. A. 045, 004, CH. A. 010, 005, CH. A. 001, 050, CH. A.
 SORT
                  512E>E0010000
 MODS E15>(E15,008,50RTLIB,NJ,E18>(E18,024,50RTL1B,NJ
//CHG. TU12
                  DD U1SP>C, KEEP J, UNIT>C T+F1:1:0EFER J, DSN>+A, 9895455.
VOL>SER>C+F1:A+F1:B+F1:C+F1:D+F1:E+F1:F+F1:G+F1:H+F1:
                  1+F1+J+F1+K+F1+L+F1+M+F1+N+F1+0+F1+P+F1+0+F1+R+F1+S+F11
//CHG.TPR1N
T/P TU12
                  OF.
                        *,SPACE>[TRK,[1,1]]
               10500502050
          PLACE 1/P CONTROL CARDS BEFORE THIS CARD
```

6.3.4 AIE MERGE

```
C1:: G. WANG :.PRTY>02:TYPRUN>HOLD
P9623N:TIME>02:ACCT>035323007
DU DISP>[:KEEP]:UNIT>[T+F5:1:UEFEK]:DSN>+E.9895455;
VOL>5KR>[:4F5:A+F5:U+F5:D+F5:D+F5:E+F5:F+F5:G+F5:N+F5:
I+F5:J+F5:K+F5:L+F5:M+F5:M+F5:D+F5:P+F5:Q+F5:R+F5:S+F5:
//19897M JOB
//C9897N EXEC
//CHG.SORTINO1 DU
                                                                                               CT 22
                                                                                                          3
                    //CHG.SORTINO2 DO
                                                                                               CT23
                                                                                                          1
                    I+Fu,J+F6,K+F6,L+F6,M+F6,N+F6,0+F6,P+F6,Q+F6,R+F6,S+F6],CT23
DCB>[LRECL>U050,BLK5IZE>3000],LABEL>[,NSL,RETPD>099]
DU DISP>[,KLEP],UNIT>[T+F7,1,UEFER],DSN>+G,9895455, CT24
//CHG.SORTINGS DU
                    VJL>SLR>[+F7,A+F7,B+F7,C+F7,D+F7,E+F7,F+F7,G+F7,H+F7, CT24
1+F7,J+F7,K+F7,L+F7,M+F7,N+F7,0+F7,P+F7,Q+F7,R+F7,S+F7],CT24
                    DCH>CLRECL>UOSO.ALKSIZE>3000 J.LABEL>C.NSL.RETPD>099 J
                    CU DISP>C KEEP J.UNIT>C T+F8.1.UEFER J.DSN>+H.9895455.
\DL>SER>C+F8.A+F8.B+F8.C+F8.D+F8.E+F8.F+F8.G+F8.H+F8.
//CHG.SORTING4 CD
                                                                                               CT25
                                                                                                          1
                   //CHG.SORTINGS CJ
//CHG.SORTINGS CJ
                                                                                                          1
                    C) DISPX -KEEP3, UNITSCT+F1,1,0EFER3, DSN3+A,9995455, CT12
V0L>SERSC+F1,A+F1,B+F1,C+F1,D+F4,E+F1,F+F1+G+F1,H+F1, CT12
I+F1,J+F1,K+F1+L+F1,M+F1,N+F1,0+F1,P+F1,Q+F1,R+F1,S+F13,CT12
//CHG.SORTOUT
                    DUBSCLRECL > UOSO + BLKSIZE > 30001
//CHG.SYSIN () +,DCB36LK51ZE>0080,SPACE>ETRK.[1:1]]
MERGE FIELDS>[025,008,CH:A:u45:u04:CH:A:010:005;CH:A]
//C9897P EXEC
                    C +6U3N+TIME>01+ACCT>D35323007
                    //CHG.TU12
                                                                                               CT12
                                                                                               CTIS
//CHG.TU13
                                                                                                 T13
                                                                                               CTI4
//CHG. TUI 4
                    //CHG.TU22
                                                                                                CT22
                    CT23
//CHG. TU23
//CHG. TU24
                                                                                               CT24
                                                                                                 T24
//CHG . TU25
                                                                                               CT25
                    VUL>5ER>[ +F8.A+F8,B+F8,C+F8.D+F8.E+F8.F+F8.0+F8.H+F8.
I ·F8.J+F8.K+F8.L+F8.M+F8,N+F8.0+F8.P+F8.Q+F8.R+F8.S+F8]
                                                                                                 T25
```

```
//CHG. TPRIN
T/P TUI2
T/P TUI3
T/P TUI4
                    . SPACE>[ TRK,[1:13]
               DI
              11000502050
              10200502050
T/P TU22
              10210502050
              10200502050
     TU24
T/P
              102-0502050
TU DISP>[:KLEP]:UNIT)[A+F5:2:DEFER]:DSN>+E,9895455: CT22
VLL>SER>[+F5:A+F5:B+F5:C+F5:D+F5:E+F5:F+F5:G+F5:H+F5: CT22
1+F5:J+F5:K+F5:L+F5:M+F5:N+F5:O+F5:P+F5:Q+F5:R+F5:S+F5]:CT22
//CHG.SORTINOT TU
                                                                            CT22/23 I
               CT24/25 1
//CHG.SORTINO2 DU
//CHG. SORTOUT
//CHG.SYSIN
                     +,UCB>ULKSIZE>0080,SPACE>[TRK,[1,1]]
 MERGE
```

6.3.5 AIE ELIMINATE DUPLICATE RECORDS

```
//L989/2 EXEC PE0350-TIME>20-ACCT>035323007
                   //CHG. TUI2
//CHG. TUI4
                                                                                             012-IN
                                                                                            CT14
                                                                                            CT14
"
//CHG. INPUT
                                                                                              1440 CDS
        COMDINE COMPILE G. WANG.
DATE-WPITIEN. 27 DEC 71.
REMARKS. PRUGRAM SIFTS AIE FILE TO ELIMINATE DUPLICATE
00000
U1U50
                                                                                                C98970
U1060
                                                                                                C98970
         ADJACEH RECORDS. ENVIRONMENT DIVISION.
01070
                                                                                                 C98970
02000
                                                                                                C98970
         CONFIGURATION SECTION.
SOURCE-COMPUTER: 18M-360.
OBJECT-COMPUTER: IBM-360.
02010
                                                                                                C98970
02020
                                                                                                C98970
U2U30
                                                                                                C98970
02110
02110
        INPUT-OUTFUL SECTION. FILE-CONTPOL.
                                                                                                C96970
                                                     ASSIGN TO UT-S-TU12
02120
              SELECT INFILE
                                                                                                C98970
              RESERVE 1 ALTERNATE AREA.
SELECT OUTFILE
RESERVE 1 ALTERNATE AREA.
02130
                                                                                                 C98970
02140
                                                     ASSIGN TO UT-S-TU14
                                                                                                C98970
02150
                                                                                                 C98970
        DATA DIVISION.
IOUOU
                                                                                                C98970
        FILE SELT. ON.
10010
10020
                                                                                                 C98970
              HECORDING MODE IS F
BLOCK CONTAINS ON RECORDS
RECORD CONTAINS SU
10030
                                                                                                C98970
10:40
                                                                                                C98970
10050
                                                    CHARACTERS
                                                                                                C98970
              LAPEL RECORDS ARE OMITTED
DATA RECORDS ARE INREC.
INREC PICTURE XESO 3 SYNC.
10060
                                                                                                 C98970
10070
                                                                                                C98970
IOUBO
IOIOO
        FD
              OUTFILE
                                                                                                C98970
              BLOCK CONTAINS OF RECORDS
RECORD CONTAINS SO
10110
10120
        10130
                                                   CHARACTERS
                                                                                                C98970
10140
                                                                                                C98970
10150
                                                                                                 C98970
10160
                                                                                                C98970
30000
                                                                                                C98970
30010
30020
                                                                                                 C98970
30030
30040
                                                                                                C98970
                                                                                                C98970
30050
30060
                                                                                                C98970
        PROCEDURE DIVISION.
50000
                                                                                                C98970
50010
         BEGIN.
                                                                                                 C98970
              OPEN 1-IPUT INFILE.
50020
                                                                                                C98970
              OPEN GUIPUT OUTFILE.
MOVE ZERO TO NUMBER-DUPS.
READ INFILE
50030
                                                                                                C98970
50040
                                                                                                C98970
50050
                                                                                                C98970
              AT END GO TO CLOSE-FILES.
MOVE THEC TO TEMPREC.
READ THE LEF
50060
                                                                                                C98970
                                                                                                COROTA
50 UBO
                                                                                                 C98970
                   AT LNO GO TO CLOSE-FILES.
                                                                                                C98970
50090
50100
         COMPARE .
              IF INMEL > TEMPREC GO TO COUNT-DUPS. WRITE OUTREC FROM TEMPREC. ADD I TO RECORDS-PASS.
50110
                                                                                                 C98970
50120
                                                                                                 C98970
                                                                                                C98970
```

```
MOVE 1'MEC TO TEMPREC.

REAU 1'H ILE

AT END GO TO WRITE-LAST.

GO TO COMPARE.
50130
                                                                                                                             C98970
                                                                                                                              C98970
50140
50150
                                                                                                                              C98970
                                                                                                                              C98970
50160
50170
            COUNT-DUPS .
                                                                                                                              C98970
                  IF INNEL IS EQUAL 70 NINES GO TO BLOCK-CHECK. ADD 1 40 NUMBER-DUPS.
                                                                                                                              C98970
50175
50180
                                                                                                                              C98970
                  REAU 1'FILE
AT LND GO TO WRITE-LAST.
GO TO COMPARE.
50190
                                                                                                                              C98970
                                                                                                                              C98970
50200
50210
                                                                                                                              C98970
           WRITE-LAST.
WRITE PUTREC FROM TEMPREC.
ADD 1 TO RECORDS-PASS.
                                                                                                                              C98970
50220
                                                                                                                               C98970
50230
50235
                                                                                                                              C98970
                                                                                                                              C98970
50240
            CLOSE-FILES,
                  CLOSE HAFILE WITH LOCK.
CLOSE DUTFILE WITH LOCK.
DISPLAY :NO. DUPS : NUMBER-DUPS UPON CONSOLE.
DISPLAY :EOJ 9897 : UPON CONSOLE.
                                                                                                                              C98970
50450
50260
                                                                                                                              C98970
                                                                                                                              C98970
50270
                                                                                                                              C98970
50280
                   GOBACK .
                                                                                                                              C98970
50290
            BLUCK-CHECK.
50400
                   COMPUTE KIT > RECORDS-PASS - RECORDS-PASS / 60 + 60.
IF KNI 15 EQUAL TO ZERO GO TO CLOSE-FILES.
                                                                                                                              C98970
                                                                                                                              C98970
50420
            NINE-FILL. WRITE OUTHEC FROM NINES.
50430
                                                                                                                              C98970
                                                                                                                              C98970
50440
              #RITE GOTHEC FHOM NINES.

ADD 1 fo KNT.

IF KNT 15 LESS THAN 60 GO TO NINE=FILL,

GO TO CLOSE-FILES.

PLACE COHOL SOURCE DEFORE THIS CARD

GIN DU "SPACELICYL-(1-1)]

PLACE TF3 DATA BEFORE THIS CARD

14 DU DISP>(OLD,KEEP),VOL>SER>+F3,UNIT>T+F3

RIN DU "SPACE>(THK,(1-1))
50450
                                                                                                                              C98970
                                                                                                                              C98970
50470
//CHG.TFG1N
                                                                                                                          1440 CDS
//IPR.TU14
                                                                                                                          T14
                                 * SPACE>ETHK ([1:1]]
//TPR.TPRIN
               PLACE T/2 CONTROL CARDS BEFORE THIS CARD
T/P TU14
```

6.3.6 AIE COPY ACCEPTABLE AIRCRAFT

```
//C98971 JUB
//C9897 EXEC
                       Ole: 6 WANG
                                                 :.PRTY>02.TYPHUN>HOLD
                       P9055L,T1ME>01.ACCT>035323007
                       C712
//LHG.TU22
                                                                                                                CT22
                                                                                                                  122
//CHG, INPUT
                       DU *, SPACE>[CYL,[1,1]]
CO:UINE COMPILE
                                                                                                                  1440 CDS
00000
                                                                                G. WANG.
                                                                                                                     C98970
01040
          DATE-WEITTHE 27 DEC 71.
                                                                                                                     C98970
          DATE-WRITTO A. 27 DEC 71.

REMARKS.

ALL COPY ACCEPTAL

ENVIRONMENT DIVISION.

CONFIGURATION SECTION.

SOUNCE-COMPUTER. 18M-360.

OBJECT-LOM: UTER. 18M-360.

FILE-CONTROL.
01050
                                                                                                                     C98970
01060
                               COPY ACCEPTABLE AIRCRAFT.
                                                                                                                     C98970
02000
                                                                                                                      C98970
02010
                                                                                                                     C98970
05050
                                                                                                                     C98970
02030
                                                                                                                     C98970
02100
                                                                                                                     C98970
         FILE-CONTHOL.

SELECT INFILE

RE'LEVE 1 ALTERNATE AREA.

SELECT OUTFILE

PESERVE 1 ALTERNATE AREA.

SELECT ACCEPT-FILE

ASSIGN TO UT-S-TU22

ASSIGN TO DA-S-DT01

RESSIGN TO DA-S-DT01

ATA DIVISION.

FILE SECTION.

FO INFILE
02120
                                                                                                                     C98970
                                                                                                                     C98970
02130
                                                                                                                      C98970
02140
                                                                                                                     C98970
                                                                                                                     C98970
02160
                                                                                                                     C 08970
02170
                                                                                                                     C98970
10000
                                                                                                                     C98970
10010
                                                                                                                     C98970
                INFILE
RECORDING MODE IS F
10020
          FU
10030
                                                                                                                     C98970
10040
                 BLOCK CUNTAINS SO RECORDS
                                                                                                                     C98970
                RECURD CONTAINS 50
LAREL FECORDS ARE OMITTED
DATA RECORDS ARE INNEC.
INNEC SYNC.
02 FILLER
10050
                                                              CHARACTERS
                                                                                                                     C98970
10060
                                                                                                                     C98970
10070
                                                                                                                      C98970
          01
10080
                                                                                                                     C98970
10090
                UZ F1-
                                                             PICTURE XC503,
                                                                                                                     C98970
10100
          FU
                                                                                                                     C98970
                OUTFIL'
RECORUING MODE 1S F
BLOCK CUNTAINS 60 RECORDS
RECORU CONTAINS 50
LAREL FLCORDS ARE OMITTED
DATA RECORDS ARE OUTREC.
OUTREC SYNC.
02 F1! LER
ACCEPT-F1LE
10110
                                                                                                                     C98970
10120
                                                                                                                     C98970
10130
                                                              CHARACTERS
                                                                                                                     C98970
10140
                                                                                                                     C98970
10150
          01
10160
                                                                                                                     C98970
10170
                                                             PICTURE XC501.
                                                                                                                     C98970
          FO
11400
                                                                                                                     C98970
                 RECORUING MODE 15 F
                                                                                                                     C98970
                 BLOCK CONTAINS 20 RECORDS
11420
```

```
C98970
11430
               RECORD CONTAINS AU
                                                      CHARACTERS
                                                                                                        C98970
11440
               LAPEL HECORDS AHE STANDARD
              LAPEL RECORDS ARE STANDARD
DATA RECORDS ARE ACCEPT-REC.
ACCEPT REC SYNC.
02 ACCEPT-DATA PICTO
02 FILLER REDEFINES ACCEPT-DATA
                                                                                                        C98970
11450
                                                                                                        C98970
11460
                                                                                                        C98970
11470
                                                       PICTURE XE 80 J.
                                                                                                        C98970
11480
                    03 DATA-1
03 FILLER
                                                                                                        C98970
11490
                                                      PICTURE 999.
PICTURE X[77].
                                                                                                        C98970
11500
                                                                                                        C98970
               02 FILLER REDEFINES ACCEPT-DATA.
11510
                                                                                                        C98970
                    05 DATA-2
05 FILLER
                                                      PICTURE XEBJ
11520
                                                       PICTURE XE723.
11530
                                                                                                        C98970
         WORKING-SICHAGE SECTION.
01 DATA-IN SYNC.
                                                                                                        C98970
30100
                                                                                                        C98970
                                                      PICTURE XE24],
PICTURE XE8],
PICTURE XE8],
PICTURE S999,
PICTURE 966) VALUE ZERO,
PICTURE XE50] VALUE
               02 FILLER
02 SER-NO
02 FILLER
30105
                                                                                                        C98970
30110
                                                                                                        C98970
30120
                                                                                                        C98970
               KNT SYNC COMPUTATIONAL
              NUMBER-RECORDS-PASS SYNC
50140
         0.1
                                                                                                        C98970
         01
35000
                                                                                                        C98970
35010
                          TAHLE-ALCEPT-A-C SYNC.
U2 ACCUPT-A-C UCCURS 250 TIMES DEPENDING ON NO-ACCEPT-A-C
40un0
         01
                                                                                                        C98970
40010
                                                                                                        C98970
                                                      PICTURE KEBJ.
PICTURE 999.
PICTURE XEBJ.
PICTURE XEBJ.
PICTURE S999 VALUE (1.
40u20
                                                                                                        C98970
         01 NO-ACCEPT-A-C SYNC
01 TEMP-ACCEPT-A-C SYNC
01 INC SYN. COMPUTATIONAL
PROCEDURE 21V1510N.
40050
                                                                                                        C98970
40040
40050
                                                                                                        C98970
                                                                                                        C98970
50000
         BEGIN.

OPEN INPUT INFILE. ACCEPT-FILE.
50010
                                                                                                         C98970
50020
                                                                                                         C98970
50030
               OPEN OLIPUT OUTFILE.
PERFORM READ-ACCEPT-DATA THRU END-R-A-D.
                                                                                                        C98970
50040
                                                                                                        C98970
         REAU-FILES.
                                                                                                        C98970
50090
               HEAD INFILE AT END GO TO CLOSE-FILES.
MOVE INTEC TO DATA-IN.
50100
                                                                                                        C98970
50110
                                                                                                         C98970
         TEST:

IF SEM-40 IS LESS THAN TEMP-ACCEPT-A-C GO TO READ-FILES.

IF SEM-40 IS EQUAL TO TEMP-ACCEPT-A-C GO TO WRITE-DATA.
50121
                                                                                                        C98970
                                                                                                        C98970
50122
               ADD 1 TO INC.
IF INC 15 GREATER THAN NO-ACCEPT-A-C GO TO BLOCK-CHECK.
50125
                                                                                                         C98970
50124
                                                                                                        C98970
               MOVE ACCEPT-A-C (INC) TO TEMP-ACCEPT-A-C.
GO TO TESTI.
50126
                                                                                                         C98970
         WRITE-DATA.
                                                                                                         C98970
50200
               WRITE OUTHER FROM DATA-IN.
ADD 1 13 HUMBER-RECORDS-PASS.
50210
                                                                                                        C98970
50215
                                                                                                        C98970
50220
               GO TO HEAD-FILES.
50222
         ALOCK-CHECK
                                                                                                         C98970
50224
               COMPUTE FINT > NUMBER-RECORDS-PASS - CENUMBER-RECORDS-PASS /
                                                                                                         C98970
50226
               15 KM 15 FOURL TO ZERO GO TO CLOSE-FILES.
                                                                                                         C98970
                                                                                                        C98970
50228
50230
         WHITE CITREL FROM NINE.
                                                                                                         C98970
50232
                                                                                                        C98970
               ADD 1 T. KNT.
IF KNT 15 LESS THAN 60 GO TO LOOP1.
50234
                                                                                                        C98970
502 16
                                                                                                        C98970
         CLOSE-FILLS.
50240
                                                                                                        C98970
               CLOSE I FILE WITH LOCK, ACCEPT-FILE WITH LOCK.
CLOSE OUTFILE WITH LOCK.
DISPLAY NUMBER-RECORDS-PASS UPON CONSOLE.
50250
                                                                                                        C98970
50260
                                                                                                        C98970
50270
                                                                                                        C98970
50280
               DISPLAY : EOJ 9897 : UPON CONSOLE.
                                                                                                         C98970
               GOPACK.
50290
                                                                                                        C98970
70000
         READ-ACCEPT-DATA
                                                                                                         C98970
               READ ACCEPT-FILE AT END GO TO END-R-A-D.
MOVE DATA-I TO NO-ACCEPT-A-C.
70010
                                                                                                         C98970
70020
                                                                                                        C98970
               MOVE ZENO TO KNI.
70030
70040
         RAD-I.
                                                                                                         C98970
               ADD 1 TO KNT.
                                                                                                        C98970
70050
         ADD 1 TO KNT.

READ AC EPT-FILE AT END GO TO END-R-A-D.

MOVE UATA-2 TO ACCEPT-A-C [KNT].

IF KNT 15 LESS FHAN NO-ACCEPT-A-C GO TO RAD-I.

MOVE ACCEPT-A-C [1] TO TEMP-ACCEPT-A-C.

ENU-R-A-D. 'XIT.
70UE O
                                                                                                         C98970
                                                                                                        C98970
70070
70480
70040
                                                                                                        C98970
                                                                                                        C98970
70100
            PLACE COBOL SOURCE BEFORE THIS CARD
GIN DD **SPACE>[CYL,[1:1]]
/*
//CHG. [FGIN DD *.5P/
                                                                                                     1440 CDS
150
57000251
57000232
57000235
57000236
57000257
57000243
57000244
57002455
57002456
57002459
57002459
57002463
```

```
59000064
5900004
59000067
59000069
59000072
59000074
 59000076
5900078
5900080
5900082
5900084
5900085
590000d8
59000090
59000092
59000094
59000095
59000095
59000099
59000103
59000104
 59000105
 59000108
59000109
 59000110
59000115
59000115
59000116
59000126
59000127
59000128
 59000130
 59000132
59000133
59000137
 59000137
59000140
59000141
59000143
59000144
59000145
59000147
59000147
  59000151
  59000152
59000153
 59000155
59000157
59000164
+END

        PLACE
        TFG
        (ATA BEFORE THIS CARD

        //TPR.TU12
        DU
        D15P2(OLO:KEEP].VOLDSER).FF1.UNIT>TFF1

        //TPR.TU22
        DU
        D15P2(OLD:KEEP].VOLDSER).FF5.UNIT>TFF5

        //TPR.TPR1N
        DU
        +,5PACED(TRK,[1:1])

  1/P DT01
1/P TU22
/*
                              1 10200802080
2 10500502050
PLACE T/P LONIROL CARDS BEFORE THIS CARD
```

6-35

6.4 IRAN FILE GENERATION PROGRAMS

6.4.1 IRAN FORMATTER OF ACCEPTANCE DATA

```
//T9897X JOB 01,; G. WANG. :,PRTY>02,TYPRUN>HOLD
//L9897X EXEC P9655L,TIME>02,ACCT>D35323007
//CHG,INPUT OD *,SPACEX[CYL,f1:1]]
01040 DATE-WRITTEN. 31 JAN 72.
01U50 REMARKS. PRUGRAM NAME- IRAN ACCEPTANCE DATE DATA PREPROCESSOR.
01U60 UNPUT -IRAN ACCEPTANCE DATE DATA CAROS.
01UFPUT-IRAN ACCEPTANCE DATE DATA CAROS.
01UFPUT-IRAN ACCEPTANCE DATE DATA TAPE[8-DIG.SER.<JDATE],
02010 ENVIRONMENT 01VISION,
                                                                                                                                                                                                                     1440 CDS
<00U00
                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                           C98970
                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                           COROTO
    02010
                        CONFIGURATION SECTION.
                                                                                                                                                                                                                          C98970
                        SUDRCE-COMPUTER. IHM-360.
OBJECT-COMPUTER. IHM-360.
INPUT-OUTPUT SECTION.
    02020
                                                                                                                                                                                                                          C98970
   02430
                                                                                                                                                                                                                           C98970
                                                                                                                                                                                                                          C98970
                       FILE-CONTHOL.

SELECT INCAHDA

RESERVE 1 ALTERNATE AREA.

SELECT FILEACCPT

RESERVE 1 ALTERNATE AHEA.
    02110
                                                                                                                                                                                                                           C98970
    02120
                                                                                                                          ASSIGN TO UT-S-TU12
                                                                                                                                                                                                                           C98970
    02130
                                                                                                                                                                                                                           C98970
   U2140
U2150
                                                                                                                        ASSIGN TO UT-5-TU13
                                                                                                                                                                                                                            C 98 97 0
                                                                                                                                                                                                                           C98970
                       DATA DIVISION.
    10000
                       FILE SECTION.
   10010
                                                                                                                                                                                                                           COROTO
                        FD INCARDA
RECURUING MODE IS F
BLOCK CUNTAINS UI RECORDS
    10100
                                                                                                                                                                                                                          C98970
   10120
                                                                                                                                                                                                                            C98970
                                                                                                                                                                                                                           C98970
    10140
                                     RECURU CONTAINS 80
                                                                                                                        CHARACTERS
                                                                                                                                                                                                                          C98970
                                   LABLL RECORDS ARE OMITTED
DATA RECORDS ARE INCARDA-IRAN.
    10150
                                                                                                                                                                                                                          C98970
    10160
                                                                                                                                                                                                                          C98970
    10200
                       01
                                   INCARUA-IRAN SYNC.
                                                                                                                                                                                                                           C98970
                                  1NCARDA-IRAN
02 SER-1-2
02 SER-3-6
02 FILLER
02 M
02 CA
02 YR
02 FILLER
    10210
                                                                                             PICTURE 99.
                                                                                                                                                                                                                          C98970
    10220
                                                                                              PICTURE 9999
                                                                                             PICTURE XC101.
    1023u
                                                                                                                                                                                                                          CORUTA
                                                                                                                                                                                                                          C98970
                                                                                              PICTURE 99.
   10250
                                                                                                                                                                                                                          C98970
   10260
                                                                                              PICTURE 99.
                                                                                                                                                                                                                          C98970
                                  02 FILLER PICTUI
FILEACCHT
RECURDING MODE IS F
BLOCK CONTAINS UI HECONUS
   10/70
                                                                                             PICTURE XESBI.
                                                                                                                                                                                                                          . .....
   11100
                       FU
                                                                                                                                                                                                                          C98970
   11120
                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                          C98970
   11140
                                   RECURU CONTAINS BU
                                                                                                                       CHARACTERS
                                                                                                                                                                                                                          C98970
                                  LABLL RECORDS ARE OMITTED
DATA RECORDS ARE FILEACCPT-IMAN.
   11150
                                                                                                                                                                                                                          COROTO
                                                                                                                                                                                                                          C98970
   11160
                      DATA RELORDS ARE FILEACCPT-IRAN,

1 FILLACCPT-IRAN SYNC.

10 FILLER PICTURE X(80).

WORKING-STURAGE SECTION.

11 JYR PICTURE S99 COMPUTATION

11 INO PICTURE S99 COMPUTATION

11 IDA PICTURE S99 COMPUTATION

11 IDA PICTURE S99 COMPUTATION

11 IDA PICTURE S99 COMPUTATION
   11200
                                                                                                                                                                                                                          C98970
   11210
    30000
                                                                                                                                                                                                                          C98970
                                 XING-STURAGE SECTION.

JYR PICTURE S99

IVR PICTURE SP99

IVR PICTURE SP90

IVR PICTURE SPNC

IVR
   30424
                                                                                                                                                                                                                          COROTO
   30030
                                                                                                                                                                                                                          C98970
   30440
                                                                                                                                                                                                                          C98970
   30050
                                                                                                                                                                                                                          C98970
   30060
                       01
                                                                                                                                                                                                                         C98970
   30110
                                                                                                                                                                                                                          C98970
                                  DAYS-IN-YEAR SYNC.
   31000
                                                                                                                                                                                                                          C98970
                                                                                            PICTURE 499
PICTURE 499
PICTURE 499
PICTURE 999
                                  02 FILLER
02 FILLER
02 FILLER
   31010
                                                                                                                                            VALUE
                                                                                                                                                                                                                          C98970
                                                                                                                                           VALUE 59.
VALUE 90.
   31020
                                                                                                                                                                                                                          C98970
   31030
                                                                                                                                                                                                                          C98970
   31040
                                              FILLER
                                                                                                                                                                                                                          C98970
                                                                                                                                           VALUE 120.
VALUE 151.
VALUE 181.
VALUE 212.
VALUE 243.
   31050
                                   02 FILLER
                                                                                             PICTURE 999
                                                                                                                                                                                                                          C98970
                                              FILLER
                                                                                            PICTURE 999
PICTURE 999
PICTURE 999
PICTURE 999
   31060
                                                                                                                                                                                                                          C98970
                                   02
    31070
                                             FILLER
                                                                                                                                                                                                                          C98970
   31080
                                  02
02
                                                                                                                                                                                                                         C98970
   31090
                                              FILLER
                                                                                                                                                                                                                          C98970
                                  02 FILLER
02 FILLER
02 FILLER
   31100
31110
                                                                                             PICTURE 999
                                                                                                                                            VALUE 273.
                                                                                                                                                                                                                          C98970
                                                                                             PICTURE 999
                                                                                                                                           VALUE 304.
VALUE 334.
                                                                                                                                                                                                                         C98970
C98970
                                                                                             PICTURE 999
                                  NO-DAYS-IN-YEAR REDEFINES DAYS-IN-YEAR SYNC.
02 KUAYS OCCURS 12 TIMES
PICTURE 999.
   31130
                       01
                                                                                                                                                                                                                          C98970
   31140
                                                                                                                                                                                                                          C98970
   31150
                                                                                                                                                                                                                          C98970
                                OAYS-IN-YEARS SYN:.

02 FILLER

02 FILLER

02 FILLER
   32000
                       01
                                                                                                                                                                                                                         C98970
                                                                                            PICTURE 9999
PICTURE 9999
PICTURE 9999
                                                                                                                                          VALUE 0.
VALUE 365.
VALUE 730.
VALUE 1095.
VALUE 1461.
VALUE 1826.
   32010
   32020
                                                                                                                                                                                                                          C98970
   32030
                                                                                                                                                                                                                          C98970
                                                                                            PICTURE 9999
PICTURE 9999
PICTURE 9999
   32040
                                              FILLER
                                                                                                                                                                                                                         C98970
                                  02
                                            FILLER
                                                                                                                                                                                                                          C98970
   32060
                                  02
                                                                                                                                                                                                                         C98970
C98970
                                                                                            PICTURE 4999
PICTURE 4999
PICTURE 4999
PICTURE 4999
PICTURE 4999
PICTURE 4999
                                                                                                                                           VALUE 2191.
VALUE 2556.
   32070
                                              FILLER
   32080
                                             FILLER
                                  02
                                                                                                                                                                                                                          C98970
   32190
                                                                                                                                          VALUE 2922.
VALUE 3267.
VALUE 3652.
                                              FILLER
                                  02
                                                                                                                                                                                                                         C98970
                                             FILLER
                                  02
                                  02
                                                                                                                                                                                                                          C98970
                                             FILLER
   32120
                                                                                                                                            VALUE
                                                                                                                                                            4017 .
                                                                                                                                                                                                                          C98970
   32130
                                                                                             PICTURE 9999
                                                                                                                                           VALUE 4383.
                                                                                                                                                                                                                          C98970
```

```
02 FILLER PICTURE 9999 VALUE 4748.
02 FILLER PICTURE 9999 VALUE 5113.
02 FILLER PICTURE 9999 VALUE 5184.
02 FILLER PICTURE 9999 VALUE 5844.
02 FILLER PICTURE 9999 VALUE 6809.
02 FILLER PICTURE 9999 VALUE 6674.
02 FILLER PICTURE 9999 VALUE 6939.
02 FILLER PICTURE 9999 VALUE 6939.
04 FILLER PICTURE 9999 VALUE 6939.
05 FILLER PICTURE 9999 VALUE 6939.
06 FILLER PICTURE 9999 VALUE 6939.
07 FILLER PICTURE 9999 VALUE 6939.
08 FILLER PICTURE 9999 VALUE 6939.
09 OAY-YEAR OCCURS 21 TIMES
                                                                                               VALUE 4748.
VALUE 5113.
VALUE 5478.
VALUE 5844.
32140
32150
                                                                                                                                                      C98970
 32160
32170
                                                                                                                                                      C98970
                                                                                                                                                      C98970
 32180
                                                                                                                                                      C98970
 32190
                                                                                                                                                      C98970
 32200
                                                                                                                                                      C98970
                                                                                                                                                      C98970
 12210
              01
                                                                                                                                                      C98970
                      02 DAY-YEAR OCCURS 21 TIMES
PICTURE 9999.
 32230
                                                                                                                                                      C98970
                                                                                                                                                      C98970
 32235
             01 F1LLACCPT-1RAN-WO'K SYNC.
02 SLR1AL PICTURE 998.
02 F1LLER P1CTURE XX
02 DAY-NO P1CTURE S914.
02 F1LLER P1CTURE X65.
02 RCDMK-0 P1CTURE X
PROCLUME 01V1S10N.
 36000
             01
                                                                                                                                                      C98970
                                                                                                                                                      C98970
 36010
                                                  PICTURE XX
PICTURE S9[4].
PICTURE X[65]
                                                                                               VALUE SPACE.
                                                                                                                                                      C98970
 36030
                                                                                                                                                      C98970
                                                                                           VALUE SPACE.
 36040
 36050
                                                                                               VALUE I#1.
                                                                                                                                                      COROTO
                                                                                                                                                      C98970
50000
              OPEN-FILES.

OPEN INPUT INCARON.

OPEN OUTPUT FILEACCPT.
 50010
                                                                                                                                                      C98970
 50020
                                                                                                                                                      C98970
 50050
              READ1.
 50200
                                                                                                                                                      C98970
                      READ INCARDA
                                                                                                                                                      C98970
 50210
               AT END GO TO BLOCK-CHECK.

ADD 1 TO RECORDS-READ.

CONVERT-SERIAL-NO.
                                                                                                                                                      C98970
 50220
 50230
                                                                                                                                                      COROTO
                                                                                                                                                      C98970
 50400
               COMPUTE SERIAL
JUAY-SETUPI.
 50410
                                                              > SER-1-2 + 1000000 < SER-3-6.
                                                                                                                                                      COROTA
 50500
                                                                                                                                                      C98970
                      MOVE UA TO 1DA.
MOVE MO TO 1MO.
NOVE YR TO 1YR.
SO TO CUNVERT-DATE.
                                                                                                                                                      C98970
 50510
 50520
                                                                                                                                                      C96970
                                                                                                                                                      C98970
 50530
               CONVERT-CATE.
 50700
                                                                                                                                                      C98970
                       PERFORM DAYS-BEFORE-AFTER-DEC-31-64 THRU DAYS-END.
 50710
                                                                                                                                                      C98970
              PERFORM DAYS-BEFORE-AFTER-DEC-31-64 THE
GO TO WRITE-OUTPUT.

DAYS-MFFORL-AFTER-DLC-31-64.

COMPUTE JYR > 1YR - 56.

COMPUTE JDAY > 1DA < KDAYS [1MO].

IF JYH EOUAL 0 GO TO LEAP-YEAR.

IF JYH EOUAL 4 GO TO LEAP-YEAR.

IF JYH LOUAL 12 CO TO LEAP-YEAR.

IF JYH LOUAL 16 GO TO LEAP-YEAR.

IF JYH LOUAL 16 GO TO LEAP-YEAR.

IF JYH LOUAL 20 GO TO LEAP-YEAR.
 50/20
 51000
                                                                                                                                                      C98970
 51010
                                                                                                                                                      C98970
 51020
                                                                                                                                                      C98970
 51030
                                                                                                                                                      C98970
 51040
                                                                                                                                                      C98970
 51050
                                                                                                                                                      C98970
 51060
                                                                                                                                                      C98970
                                                                                                                                                      C98970
                       IF JYH EQUAL 20 GO TO LEAP-YEAR. GO TO JULIAN-DAYS.
 1.1040
                                                                                                                                                      C98970
 51090
                                                                                                                                                      C98970
             LEAP-YEAR.

IF 1MU IS LLSS THAN 3 GO TO JULIAN-DAYS.

ADD 1 TO JDAY.
 51100
 51110
                                                                                                                                                      C98970
              ADD 1 TO JOAY.
                                                                                                                                                      C98970
 51140
                                                                                                                                                      C98970
                      COMPUTE DAY-NO > DAY-YEAR [JYR] < JOAY - 2922.
 51140
                                                                                                                                                      C98970
              DAYS-END.
 51150
                                                                                                                                                      C98970
   0.00
                                                                                                                                                      C98970
                       WRITE FILEACCPT-IRAN FROM FILEACCPT-IRAN-WORK.
                                                                                                                                                      C98970
 60020
                      ADD 1 TO RECORDS-PASS.
GO TO READ1.
                                                                                                                                                      C98970
 50030
                                                                                                                                                      C98970
60200 BLOCK-CHECK.
                                                                                                                                                      C98970
             BLOCK-CHECK.
GO TO CLOSE-FILES,
CLOSE-FILLS,
CLOSE FILEACEPT LITH LOCK.
CLOSE FILEACEPT LITH LOCK.
OISPLAY: CARDS PEAD 1 RECORDS-READ UPON CONSOLE.
DISPLAY: RECORDS-OT: RECORDS-PASS UPON CONSOLE.
OISPLAY: EOU C9697 1 UPON CONSOLE.
 60210
                                                                                                                                                      C98970
60300
                                                                                                                                                      C98970
 60310
60320
60330
                                                                                                                                                      C98970
                                                                                                                                                      C98970
 50340
                                                                                                                                                      C98970
60350
                                                                                                                                                      C98970
60360
                      GOBACK.
                  PLACE COBOL SOURCE BEFORE THIS CARD
SIN DD +.SPACE>(CYL+(1+1))
7. PLACE COBOL SOURCE BEFORE THIS ///CHG, IFGIN DD .. SPACE>;CYL,C1:1]]
TFG TU12 11 0012080
57 229 0 7 158 1 1
57 230 0 6 158 1 1
57 231 0 7 158 1 1
17 232 0 7 158 1 1
                                                                                                                                                  1440 CDS
TFG TU12
57 229 0
57 230 0
57 231 0
57 232 0
57 235 0
57 236 0
57 237 0
                                  8 158 1 1
9 158 1 1
57 241 0
57 243 0
57 244 0
57 245 0
                                9 158 1 1
10 158 1 1
                                12 158 1
                               11 158 1
3 159 1
 57 246 0
                                 4 159 1 1
4 159 1 1
5 159 1 1
572453 0
572455 0
572457 0
                                  4 159 1 1
                                  4 159
572458 0
```

C98970

58 58	780 781	0	11 159 1 1
58	782	0	11 159 1 1
58 58	783 784	0	11 159 1 1
58	785	Ö	11 159 1 1
58 58	786 787	0	11 159 1 1 11 159 1 1
58	788	0	11 159 1 1 10 159 1 1
58	789	0	10 159 1 1
58 58	730 731	0	11 159 1 1 12 159 1 1
58	792	0	11 159 1 1
58 58	793	0	12 159 1 1 11 159 1 1
58	798	0	11 159 1 1
58 58	900	0	3 160 1 1 4 160 1 1
58	902	0	5 160 1 1
58 58	903	0	6 160 1 1
59	001	0	11 159 1 1
59	002	0	11 159 1 1
59 59	003	0	11 159 1 1 11 159 1 1
59	005	0	11 159 1 1
59 59	006	0	12 159 1 1 12 159 1 1
59	008	0	12 159 1 1
59	009	0	12 159 1 1 12 159 1 1
59 59	011	0	12 159 1 1 12 159 1 1
59	012	0	12 159 1 1
59 59	014	0	12 159 1 1 12 159 1 1 12 159 1 1 12 159 1 1 12 159 1 1
59	016	0	12 159 1 1
59 59	018	0	12 159 1 1 1 160 1 1
59	020	0	1 160 1 1
59 59	021	0	1 160 1 1
59	023 024	0	2 160 1 1
59 59	024	0	1 160 1 1
59	026	0	1 160 1 1
59	027	0	2 160 1 1
59 59	028	0	1 160 1 1
59	030 031	1)	2 160 1 1
59 59	032	0	2 160 1 1 1 160 1 1
59	033	0	2 160 1 1
59 59	035	0	3 160 1 1 2 160 1 1
59	037	0	2 160 1 1 3 160 1 1
59 59	037	0	2 160 1 1
59	040	0	2 160 1 1 3 160 1 1
59	043	0 .	2 160 1 1
59 59	044	0	3 160 1 1 2 160 1 1
59	047	0	3 160 1 1 3 160 1 1
59 59	048	0	3 160 1 1 3 160 1 1
59	051	0	3 160 1 1
59	052 053	0	3 160 1 1 4 160 1 1
59 59	054	0	4 160 1 1 3 160 1 1
59	056	0	3 160 1 1
59 59	057 058	0	4 160 1 1 4 160 1 1
59	059	0	3 160 1 1
59 59	060	0	4 160 1 1 4 160 1 1
59	063	0	5 160 1 1
59	064	0	5 160 1 1
59 59	065	0	4 160 1 1 4 160 1 1
59	067	o	5 160 1 1
59	068	0	5 160 1 1
59 59	069	0	5 160 1 1 5 160 1 1
59	072	0	5 160 1 1
59	074	0	6 160 1 1
59	076	0	6 160 1 1
59	077	0	6 160 1 1

```
59 078 0
59 079 0
59 089 0
59 081 0
59 082 0
59 083 0
59 084 0
59 085 0
59 086 0
59 086 0
59 086 0
59 087 0
59 087 0
59 087 0
59 087 0
59 087 0
59 087 0
59 087 0
59 087 0
59 087 0
59 087 0
59 088 0
59 088 0
59 089 0
59 089 0
59 089 0
59 089 0
59 089 0
59 089 0
59 089 0
59 089 0
59 089 0
59 089 0
59 100 0
59 101 0
59 102 0
59 103 0
59 104 0
59 106 0
59 108 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
59 110 0
50 110 0
50 110 0
50 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PLACE TFG DATA BEFORE THIS CARD

13 DO DISP>(OLD:PASS)

RIN DO +:SPACE>(TRK:[1:17]

2 12000802080

3 12000802080

PLACE T/P CONTROL CARDS BEFORE THIS CARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D13-PASS
```

6.4.2 IRAN PREPROCESSOR

```
//C9897Y EXEC P9655L.TIME>02.ACCT>035323007
                         P9655.TIME202.ACCT>D35323007

DU DISP>CC_D:PASS 1

DU DISP>C.PASS 1:UNIT>CT+F5:1:DEFER 1:DSN>+E.9895422:
VOL>SER>C+F5:A+F5:B+F5:C+F5:D+F5:E+F5:F+F5:G+F5:N+F5:
I+F0:J+F5:K+F5:L+F5:M+F5:N+F5:O+F5:P+F5:G+F5:R+F5:S+F51
 //CHG. TU13
                                                                                                                       D13-0UT
  //CHG. TU22
 "
                                                                                                                     CT22
                                                                                                                       122
            //CHG. INPUT
                                                                                                                       1440 CDS
-00000
                                                                                                                          C98970
_01040
                                                                                                                          C98970
                                                                                                                          C98970
C98970
 01050
 01060
 01070
                                                                                                                          C98970
 DIUAD
            OUTPUT-MAG. TAPE WITH CALCULATED IN PAINTED IRAN EVENT REPORT.

ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOUNCE-COMPUTER. IBN-360.
OBJECT-COMPUTER. IBI-360.
INPUT-OUTPUT SECTION.
FILE-CONTROL.
SELECT FILEACCP?
RESERVE 1 ALTERNATE AREA
                                                                                                                          C98970
 01090
                                                                                                                          C98970
 02000
                                                                                                                           C98970
 02010
                                                                                                                          C98970
 02020
                                                                                                                          C98970
 02030
                                                                                                                          C98970
 U2100
                                                                                                                          C98970
                                                                                                                          C98970
                                                                   ASSIGN TO UT-S-TU13
                                                                                                                          C98970
C98970
 02120
                   RESERVE 1 ALTERNATE AREA.
SELECI FILEEVENT
RESERVE 1 ALTERNATE AREA.
 02130
 02140
                                                                   ASSIGN TO UT-S-TU14
                                                                                                                           C98970
 02150
                                                                                                                          C98970
                   SELECT IRANOUT
RESERVE 1 ALTERNATE AREA.
 02160
                                                                    ASSIGN TO UT-S-TUZZ
                                                                                                                          C98970
                                                                                                                          C98970
 02180
                   SELECT TRANKEPORT
                                                                   ASSIGN TO UT-S-TU23
                                                                                                                          C98970
                         RESERVE I ALTERNATE AREA.
 02190
                                                                                                                          C98970
            DATA DIVISION.
                                                                                                                          C98970
 10010
            FILE SECTION.
FD FILEACCHT
RECOPUTING MODE IS F
                                                                                                                          C98970
C98970
 11100
                   BLOCK CUNTAINS OF RECORDS
 11130
                                                                                                                          C98970
 11140
                                                                  CHARACTERS
                                                                                                                          C98970
                   LAPLE RECORDS ARE OMITTED
DATA RECORDS ARE FILEACCPT-IRAN.
 11150
            11160
                                                                                                                          C08070
 11200
                                                                                                                          C98970
           02 FILLER
FD FILLEVENT
 11210
                                                                                                                          C98970
 12100
                                                                                                                          C98970
                  RECORDING MODE IS F
HLOCK CONTAINS OF RECORDS
HECUPD CONTAINS NO
                                                                                                                          C98970
                                                                                                                          C98970
C98970
 12130
 12140
                                                                  CHARACTERS
 12150
                   LABLE RECORDS ARE OMITTED DATA RECORDS ARE FILEEVENT-IRAN.
                  DATA RECORDS AND FILEEVENT-IRAN SYNC. PICTURE XE801.
                                                                                                                          C98970
 12160
 12200
                  FILEVENT-IRAN SYNC.
02 FILLER PICTURE XI
IRANOUT
RECORDING MODE IS F
BLOCK CUNTAINS 30 RECORDS
RECORD CONTAINS 80
LABEL RECORDS ARE OMITTED
DATA RECORDS ARE IRANOUT-PRE.
IRANOUT-PRE SYNM
                                                                                                                         C98970
C98970
C98970
C98970
 12210
 15100
 13120
 13150
                                                                                                                         C98970
C98970
C98970
 13140
                                                                  CHARACTERS
 13160
 13200
            01
                   IRANOUI-PRE SYNC.
                                                                                                                          C98970
                  02 FILLER
INANREPURT
RECURUING MODE IS F
                                                   PICTURE XC801.
                                                                                                                          C98970
 14100
            FD
                                                                                                                          C98970
 14120
                                                                                                                          C98970
                  HEOUNCONTAINS 45 NECOND.

RECURD CONTAINS 120 CHARACT
LARL RECORDS ARE OMITTED
DATA RELORDS ARE IRANREPORT-PRE.

IRANREPURT-PRE SYNC.

PICTURE X[120].
 14130
                                                                                                                          C98970
 14140
                                                                  CHARACTERS
                                                                                                                          C98970
                                                                                                                          C98970
 14160
                                                                                                                          C98970
                                                                                                                         C98970
 14200
            01
 14210
            02 FILLER
WORKING-5104AGE SECIJON,
01 JYR PICTURE 599
01 IYR PICTURE 599
01 IMO PICTURE 599
01 IDA PICTURE 599
  50000
                  KING-STORAGE SECIION.

JYR PICTURE 599 COMPUTATIONAL VALUE ZERO SYNC.

IYR PICTURE 599 COMPUTATIONAL VALUE ZERO SYNC.

IMO PICTURE 599 COMPUTATIONAL VALUE ZERO SYNC.

JOAY PICTURE 599 COMPUTATIONAL VALUE ZERO SYNC.

RECORDS-READ PICTURE 9(6) SYNC VALUE ZERO.

PICTURE 9(6) SYNC VALUE ZERO.
 30020
                                                                                                                          C98970
 50030
                                                                                                                          C98970
  0440
 30050
                                                                                                                          C98970
 30060
            01
                                                                                                                          C98970
 50100
                                                                                                                         C98970
 50110
                  NINE STNC.
 50230
            01
                                                                                                                          C98970
                                                   PICTURE X(25)
 50240
                                                                             VALUE
                                                                                                                          C98970
                                                       30250
                                                                                                                          C98970
                                                   30260
                  02 FILLER
                                                                                                                          C98970
                                                                                                                          C98970
 30280
                   02 FILLER
                                                   PICTURE XE 301
                                                                                                                          C98970
                                                      30290
                                                                                                                          C98970
                  KOUNT PICTURE 5999
KNT PICTURE 5999
DAYS-IN-YEAR SYNC.
                                                                                                                          C98970
 30410
                                                                                                                          C98970
31000
            01
                                                                                                                          C98970
                  02 FILLER
02 FILLER
                                                   PICTURE 999
PICTURE 999
PICTURE 999
PICTURE 999
 31010
                                                                             VALUE
                                                                                                                          C98970
 31020
                                                                             VALUE
                                                                                       31.
                                                                                                                          C98970
                  02 FILLEH
                                                                                        59.
 31030
                                                                             VALUE
                                                                                                                          C98970
 51040
                                                                              VALUE
                                                                                                                          C98970
```

```
PICTURE 999
PICTURE 999
PICTURE 999
                                                                 VALUE 120.
VALUE 151.
VALUE 181.
               02 FILLER
02 FILLER
02 FILLER
31050
                                                                                                       C98970
                                                                                                       C98970
31060
31070
                                           PICTURE 999
PICTURE 999
               02
                    FILLER
                                                                  VALUE 212.
                                                                                                       C98970
31080
                                                                 VALUE 243.
VALUE 273.
                                                                                                       C98970
31090
               02
                    FILLER
                    FILLER
                                           PICTURE
               02
31100
31110
                    FILLER
                                          PICTURE 999
PICTURE 999
                                                                 VALUE 304
                                                                                                       C98970
              02 FILLER PICTURE 999
02 FILLER PICTURE 999
00 KUAYS OCCURS 12 TIMES
02 KUAYS OCCURS 12 TIMES
PICTURE 999.
                                                                  VALUE 334.
                                                                                                       C98970
31120
31130
         01
                                                              YEAR SYNC.
                                                                                                       C98970
                                                                                                       C98970
31140
                                                                                                       C98970
31150
               DAYS-IN-YEARS SYNC.
                                                                                                       C98970
32000
                    FILLER
FILLER
               02
02
                                           PICTURE 9999
                                                                 VALUE
                                                                             ٥.
                                                                                                       C98970
32010
                                          PICTURE 9999
PICTURE 9999
PICTURE 9999
                                                                 VALUE
                                                                         365.
730.
                                                                                                       C98970
32020
32030
                    FILLER
                                                                 VALUE
                                                                                                       C98970
                                                                 VALUE 1095.
                                                                                                       C98970
32040
               02
                    FILLER
                                          PICTURE 9999
PICTURE 9999
32050
                    FILLER
                                                                 VALUE 1461.
                                                                                                       C98970
               02
                                                                                                       C98970
                    FILLER
FILLER
                                                                 VALUE 1826.
32060
               02
                                           PICTURE 9999
                                                                  VALUE 2191.
                                                                                                       C98970
32070
               02
32080
                    FILLER
                                          PICTURE 9999
PICTURE 9999
                                                                 VALUE 2556.
                                                                                                       C98970
                                                                  VALUE 2922.
                                                                                                       C98970
32090
               02
                    FILLER
                    FILLER
                                           PICTURE
                                                                  VALUE 3287.
                                                                                                       C98970
32100
               02
                                                                 VALUE 3652.
VALUE 4017.
VALUE 4383.
VALUE 4748.
VALUE 5113.
                    FILLER
                                           PICTURE 9999
                                                                                                       C98970
32110
                                           PICTURE 9999
32120
               02
32130
                    FILLER
                                           PICTURE 9999
PICTURE 9999
                                                                                                       C98970
                                                                                                       C98970
32140
32150
               02
                    FILLER
               02
                    FILLER
                                           PICTURE 9999
                                                                                                       C98970
32160
               02
                    FILLER
                                           PICTURE 9999
                                                                  VALUE 5478.
                                                                                                       C98970
                                           PICTURE 9999
                                                                 VALUE SANA.
32170
               02
                    FILLER
                                                                                                       C98970
                                                                 VALUE 6209.
VALUE 6574.
VALUE 6939.
VALUE 7305.
                                           PICTURE 9999
                    FILLER
                                                                                                       C98970
32180
               02
32190
                    FILLER
                                           PICTURE 9999
                                                                                                       C98970
                                           PICTURE 9999
                                                                                                       C98970
32200
               02
                    FILLER
32210
                    FILLER
                                           PICTURE
               DAY-IN-YEAR-TABLE REDEFINES PAYS-IN-YEARS SYNC.
D2 DAY-YEAR OCCURS 21 TIMES
PICTURE 9999.
32220
32230
          01
                                                                                                       C98970
                                                                                                       C98970
32235
                                                                                                       C98970
               FILLEVENT-IRAN-PORK2 SYNC.
                                                                                                       C98970
33000
                    SER-I-2-2
SER-3-6-2
SERIES-2
               02
                                          PICTURE 99.
                                                                                                       C98970
33020
                                                                                                       C98970
                                                                                                       C98970
33030
                                           PICTURE
               02
                                           PICTURE XX.
33040
               02
                    FILLER
                                                                                                       C98970
                                                                                                       C98970
                     MO-STRT-2
               02
                     DA-STRT-2
                                           PICTURE
                                                      99.
                                                                                                       C98970
33060
                                           PICTURE
PICTURE
                                                      99.
33070
               02
                     YR-STRT-2
                                                                                                       C98970
33080
               02
                    FILLER
                                                                                                       C98970
                                           PICTURE 99.
33090
               02
                    MU-UONE-2
                                                                                                       C98970
                    CA-UONE-2
33100
               02
                                                                                                       C98970
                                           PICTURE 49.
PICTURE XXXX.
PICTURE 9999
                     YK-UONE-2
33110
               02
33120
               02
                    FILLER
                                                                                                       C98970
                     FL-HRS-CUM-Z
                                                      9999.
                                                                                                       C98970
33130
               02
                    FL-UEC-2
FL-U-TENTH-2
                                           PICTURE X.
                                                                                                       C98970
33150
               02
                                                                                                       C98970
               02
                    FILLER
                                           PICTURE XX.
                                                                                                       C98970
33160
                                           PICTURE 99.
PICTURE X[33].
33170
                     TYPL-CODE-2
                                                                                                       C98970
                    FILLER
33180
               02
                                                                                                       C98970
33190
                     MH-LABOR-2
                                           PICTURE 9999.
                                                                                                       C98970
                    FILLER
                                           PICTURE X[7].
33200
               02
                                                                                                       C98970
               IRAN-OUT-WORKT LYNC.
34000
         01
                                                                                                       C98970
                                           PICTURE 9[8]
                                                                 VALUE ZEROS.
VALUE SPACE.
VALUE SPACE.
                    SERIAL-T
34010
               02
                                                                                                       C98970
                                           PICTURE X
                                                                                                       C98970
34020
               02
                                          PICTURE X
PICTURE 9[5]
PICTURE X
34030
                    FILLER
                                                                                                       C98970
                     ACCPT-DA-T
                                                                 VALUE ZEROS.
VALUE SPACE.
                                                                                                       C98970
34040
               02
34 050
                     FILLER
               02
                    VISIT-T
                                          PICTURE 9
34060
               02
                                                                 VALUE ZEROS.
                                                                                                       C98970
                                                                 VALUE SPACE.
34065
                                                                                                       C98970
               02
                    FILLER
                    TYPE-CODE-T
                                                                 VALUE ZEROS.
VALUE SPACE.
                                                                                                       C98970
C98970
34 070
                                           PICTURE
                                           PICTURE
34 080
               02
                                                      X
                     FL-HRS-C-T
                                           PICTURE 9[5]
                                                                 VALUE ZEROS.
34090
               02
                                                                 VALUE SPACE.
VALUE ZEROS.
VALUE SPACE.
34100
               02
                    FILLER
                                          PICTURE M
                                                                                                       C98970
                     AGE-STRT-T
                                                                                                       C98970
               02
34120
                    FILLER
                                           PICTURE X
                                                                                                       C98970
                    DA-NO-ST-T
                                                                 VALUE ZEROS.
VALUE SPACE.
34130
               02
                                           PICTURE 9999
                                                                                                       C98970
                                           PICTURE X
34140
                    FILLER
               02
                                                                VALUE SPACE.
VALUE ZEROS.
VALUE SPACE.
VALUE ZEROS.
VALUE ZEROS.
VALUE ZEROS.
VALUE SPACE.
34150
                    DA-NO-FN-T
                                           PICTURE S9999
                                                                                                       C98970
                                          PICTURE X
PICTURE 999
                                                                                                       C98970
                    FILLER
34160
               02
34170
               02
                    DURATION-DA-T
                                                                                                       C98970
                    FILLER
MH-LABOR-T
                                           PICTURE X
34180
               02
                                                                                                       C98970
                                                                                                       C98970
                                           PICTURE 9999
34190
               02
34200
                                                                                                       C98970
                    TYPE-CODE-N:'T-S
                                                                                                       C98970
34210
               02
                                          PICTURE 99
                                          PICTURE X
PICTURE 9(5)
34220
               02
                    FILLER
                                                                                                       C98970
34230
               02
                    FL-HRS-C-NXT-S
                                                                                                       C98970
34240
               02
                    FILLER
                                           PICTURE X
                                                                  VALUE SPACE.
                                                                                                       C98970
                                          PICTURE S9999
PICTURE X
34250
                    0A-110-ST-NX"-S
               02
                                                                 VALUE ZEROS.
VALUE SPACE.
                                                                                                       C98970
34260
                    FILLER
                                                                  VALUE
                                                                                                       C98970
                                                                                                       C98970
34270
               02
                    INTERVAL-DAY-T PICTURE 9999
                                                                  VALUE ZEROS.
```

```
FILLER
                                          PICTURE X
                                                                VALUE SPACE.
                                                                                                     C98970
34280
               02
34290
                    INT-MO-T
                                          PICTURE 999
                                                                VALUE ZEROS.
                                                                                                     C98970
               0Z
34500
               ΟZ
                    FILLER
IN1-FL-HRS-1
                                          PICTURE X
                                                                VALUE SPACE
                                                                                                     C98970
                                          PICTURE 9(5)
                                                                VALUE ZEROS.
                                                                                                     C98970
               0.2
                    FILLER
R-MARK-T
34520
                                                                VALUE SPACE
                                                                                                     C98970
34330
               02
                                          PICTURE X
                                                                VALUE SPACE.
                                                                                                     C98970
34400
         01
               IRAN-DUT-WORKO SYNC.
                                                                                                     C98970
                                          PICTURE 9[8]
34410
               02
                    SERIAL-0
SERIES-0
                                                                VALUE ZEROS.
VALUE SPACE.
                                                                                                     C98970
C98970
                                                                VALUE SPACE.
VALUE ZEROS.
VALUE SPACE.
                    FILLER
ALCHT-DA-0
54450
                                          PICTURE XX
                                                                                                     C98970
                                          PICTURE SULAS
                                                                                                     C98970
54440
               02
34450
                    FILLER
VI'II-0
                                          PICTURE X
                                                                                                    C98970
                                                                VALUE ZEHUS.
                                          PICTURE
               02
                                                                VALUE SPACE.
VALUE ZEROS.
VALUE SPACE.
34465
                    FILLLR
                                          PICTURE X
                                                                                                     C98970
                    TYPL-CODE-0
                                          PICTURE 99
34470
               0.2
                                                                                                     C98970
54480
                                          PICTURE X
                                                                                                     C98970
               02
                                                               VALUE ZEROS.
VALUE SPACE.
VALUE ZEROS.
VALUE SPACE.
                    FL-HRS-C-0
                                          PICTURE 9[5]
34490
               υ2
                                                                                                     C98970
34500
               02
                    FILLER
                                          PICTURE X
                                          PICTURE 990
                                                                                                     C98970
C98970
34510
               02
                    AGE-STRT-0
                    FILLER
                                          PICTURE X
34520
               02
                                                                VALUE SPACE.
                                          PICTURE S9999
PICTURE X
34530
                    DA-NO-ST-0
                                                                                                     C98970
               02
34540
               0.2
                    FILLER
                                                                                                     C98970
34550
                    DA-1-0-FN-0
                                          PICTURE S9999
                                                                                                     C98970
               02
34560
               02
                    FILLER
                                          PICTURE X
PICTURE 999
                                                                                                     C98970
                    CURATION-DA-O
                                                                                                     C98970
34570
               02
54580
               02
                    FILLER
                                          PICTURE X
                                                                                                     C98970
                                                                VALUE ZEROS.
VALUE SPACE,
VALUE ZEROS.
VALUE SPACE.
                                          PICTURE 9999
34590
               02
                    MH-LABOR-0
                                                                                                     C98970
                    FILLER
                                          PICTURE X
                                                                                                     C98970
34600
               02
                    TYPE-CODE-NAT-0 PICTURE 99
                                                                                                     C98970
34610
               02
                                          PICTURE X
34620
               02
                    FILLER
                                                                                                     C98970
                                                                VALUE SPACE.
                    FL-HRS-C-NXT-0
                                          PICTURE 9051
34630
                                                                                                     C98970
               02
                                                                                                    C98970
34640
               02
                    FILLER
                                          PICTURE X
                                          PICTURE S9999
                    DA-110-ST-NX . - 0
34050
               02
                                          PICTURE X
34664
                    FILLER
                                                                                                     C98970
                    INTERVAL-DA-0
                                                                                                     C98970
34070
               0.2
                                          PICTURE X
PICTURE 999
PICTURE X
34680
                                                                                                     C98970
34690
               0.2
                    INTERVAL-WK. 0
                                                                VALUE ZEROS.
VALUE SPACE.
                                                                                                     C98970
34700
                    FILLER
                                                                                                     C98970
               02
                    INT-FL-HRS-0
34710
                                          PICTURE 9(5)
                                                                VALUE ZEROS.
                                                                                                     C98970
C98970
                    FILLER
34720
               02
54750
                    R-MARK-0
                                          PICTURE X
                                                                VALUE I#1.
                                                                                                     C98970
               1RANREPURT-WORKP SYNC.
02 FILLER PICTURE X[5]
35000
         01
                                                                                                     C98970
                                                                VALUE SPACE.
VALUE SPACE.
VALUE SPACE.
VALUE SPACE.
                                                                                                     C98970
35010
350Z0
                    SERIAL-R
                                          PICTURE XEBI
                                                                                                     C98970
                                                                                                    C98970
35030
               0Z
                    SERIES-R
                                          PICTURE X
35040
                    FILLER
                                          PICTURE X
               02
                                          PICTURE -151.
35050
                    ALCPT-DA-R
                                                                                                     C98970
                    FILLER
                                                                VALUE SPACE.
VALUE SPACE.
VALUE SPACE.
                                                                                                     C98970
35060
               02
35070
                    VISIT-R
                                          PICTURE X
                                                                                                     C98970
35080
               02
                    FILLER
                                          PICTURE X
                                                                                                     C98970
                                          PICTURE Z9.
45090
               02
                    TYPE-CODE-R
                                                                                                     C98970
35100
                    FILLER
                                                                VALUE SPACE.
                                                                                                    C98970
35110
               112
                    FL-HRS-C-R
                                          PICTURE ZZZZ9.
                                                                                                     C98970
35120
                    FILLER
                                          PICTURE X
                                                                VALUE SPACE.
               02
                                                                                                     C98970
35130
                    AUF-STRT-R
                                          PICTURE ZZ9
                                                                                                     C98970
                    DA-10-ST-R
                                          PICTURE -[5].
PICTURE -[5].
PICTURE X
35150
               02
                    DA-110-FN-R
35170
               02
                                                                                                     C98970
15140
               02
                    FILLER
                                                                VALUE SPACE.
                                                                                                     C98970
                    CURATION-DA- R
                                          PICTURE ZZ9.
               02
                                                                                                     C98970
35200
               02
                    FILLER
                                          PICTURE X
                                                                VALUE SPACE. VALUE SPACE.
                                                                                                     C98970
              02
                    MINEL ARON-R
                                         PICTURE XE41
35210
                                                                                                     C98970
                    FILLER
35220
                                                                                                     C98970
35230
               0 Z
                    TYPL-CODE-NAT-R
                                         PICTURE 79.
                                                                                                    C98970
35240
               OZ
                    FILLER
                                          PICTURE X
                                                                VALUE SPACE.
                                          PICTURE ZZZZ9.
35250
                    FL-HRS-C-NXT-R
               0 Z
                                                                                                     C98970
                    FILLER
35260
               02
                                          PICTURE X
                                                                VALUE SPACE.
                                                                                                    C98970
                    PA-110-ST-NX '-R
35270
35280
               0.7
                                          PICTURE ZZZ9
                                                                                                    C98970
                    FILLER
                                          PICTURE X
               02
                                                               VALUE SPACE.
                                                                                                     C98970
35290
                                         PICTURE ZZZ9.
                    ITITLRVAL-DA-R
                                                                                                    C98970
               0.2
                    FILLER
                                                               VALUE SPACE.
                                                                                                     C98970
                    INTERVAL-WK .R
35310
               02
                                          PICTURE 229.
                                                                                                    C98970
                                         PICTURE X
PILTURE ZZZZ9.
PICTURE XX
35320
35330
                    FILLER
INT-FL-HRS-R
               02
                                                                VALUE SPACE.
                                                                                                    C98970
               02
                                                                                                    C98970
C98970
                                                               VALUE SPACE.
VALUE SPACE.
VALUE SPACE.
VALUE SPACE.
VALUE SPACE.
35340
35350
                    FILLIH
MO-STRT-R
               02
                                          PICTURE
                                                                                                    C98970
              02
                                                    XX
35360
                    FILLER
                                          PICTURE
                    DA-STRT-H
              02
                                          PICTURE XX
                                                                                                     C98970
35380
35390
                    FILLER
                                          PICTURE
                                                                                                    C98970
                                                               VALUE SPACE.
VALUE SPACE.
VALUE SPACE.
VALUE SPACE.
VALUE SPACE.
                    YH-STRT-R
                                         PICTURE XX
              0.2
                                                                                                    C98970
35400
                    FILLER
               02
                                          PICTURE XX
                                                                                                    C98970
35410
               02
                    MU-LONE-R
FILLER
                                          PICTURE XX
35420
              02
                                          PICTURE
                                                                                                     C98970
35450
               v2
                    DA-JONE-R
                                         PICTURE
                                                                                                    C98970
                    FILLER
35440
                                                               VALUE SPACE.
              02
                                         PICTURE X
                                                                                                    C98970
35450
                    YR-DONE -R
                                         PICTURE XX
                                                                                                    C98970
                                         PICTURE
15460
                                                                       SPACE.
              02
                    FILLER
                                                    X[ 16 ]
                                                               VALUE
                                                                                                    C98970
35470
                    WHELK-M-R
                                         PICTURE X
                                                                 MUL 11:
                                                                                                    C98970
```

```
01 FILEACCPT-IRANW SYNC.
02 SERIAL PICTURE 9(8)
02 FILLER PICTURE XX.
PICTURE S9(4)
35600
                                                                                                                                      C98970
                                                                                    VALUE ZEROS.
35610
35620
                                                                                                                                      C98970
35630
                                                                                 VALUE ZEROS.
                                                                                                                                      C98970
35640
                                                                                                                                       C98970
                           RCDMK-0
                                                        PICTURE X.
35650
                                                                                                                                      C98970
                    02
                    IRANREPURT-TITLE-A SYNC.

102 CAR-CODE-A PICTURE X

102 FILLER PICTURE XI
37000
            01
                                                                             37010
                                                                                                                                      C98970
                                                PICTURE X[14]
PICTURE X[9]
PICTURE X[12]
                    02
                         FILLER
37020
                                                                                                                                      C98970
                          T-IO-24-A
FILLER
37030
                                                                                                                                      C96970
37040
                                                                                                                                      C98970
                    02
                          FILLER PICTURE X[12]
T-37-55-A PICTURE X[19]
T-50-71-A PICTURE X[16]
T-72-90-A PICTURE X[19]
T-91-99-A PICTURE X[19]
PAGE-NO-A PICTURE X[22]
FILLER PICTURE X[10]
T-114-120-A PICTURE X[7]
37050
                          T-37-55-A
T-50-71-A
                                                                                                                                      C98970
37060
                    02
                                                                                                                                      C96970
37070
37080
                    02
                                                                              VALUE :
                                                                                                  PAGE :.
                                                                                                                                      C98970
                                                                             VALUE SPACE.
37090
                    02
                                                                                                                                      C98970
37095
                                                                                                                                      C98970
37100
                    02
                                                                                                                                      C98970
                    IRANREPORT-TITLE-B SYNC.
37200
            01
                                                                                                                                      C98970
                         CAR-CODE-B PICTURE X
37210
                    02
                                                                              VALUE SPACE.
                                                                                                                                      C98970
                                                PICTURE XE141
PICTURE XE171
PICTURE XE171
PICTURE XE61
PICTURE XE61
PICTURE XE91
                                                                             VALUE SPACE.
VALUE :DATE 1 Y F/M :.
VALUE :AGE DATE DATE IN:.
37220
                         FILLER
                                                                                                                                      C98970
                          T-10-32-B
T-33-49-B
37230
                    02
                                                                                                                                      C98970
37240
                                                                                                                                      C98970
                    02
                                                                             VALUE SPACE.
VALUE SPACE.
VALUE ST F/H STRT
VALUE SPACE.
VALUE SPACE.
VALUE SCOMPLETE SPACE.
VALUE SPACE.
VALUE SPACE.
VALUE SPACE.
37250
                           FILLER
                                                                                                                                      C98970
                          T-50-71-B
T-74-80-B
37260
                    02
                                                                                                                                      C98970
37270
                                                                                                                                      C98970
                    02
                                                PICTURE X(5)
PICTURE X(10)
PICTURE X(10)
PICTURE X(14)
37280
                           FILLER
                                                                                                                                      C98970
                          T-80-95-8
T-90-105-8
37290
                    02
                                                                                                                                      C98970
37500
                    02
                                                                                                                                      C98970
37310
37320
                    02
                           FILLER
                                                                                                                                      C98970
                           T-120-B
                                                 PICTURE X
                                                                                                                                      C98970
                    02
37408
37410
                   IRANREPURT-TITLE-C SYNC. 02 CAR-CODE-C PICTURE X
            01
                                                                             VALUE SPACE.
VALUE SPACE.
VALUE :SERIAL :.
VALUE :CODE S P X
                                                                                                                                      C98970
                                                PICTURE X
PICTURE X(4)
PICTURE X(10)
PICTURE X(17)
PICTURE X(17)
37420
37430
37440
                    02
                         FILLER
                                                                                                                                      C98970
                          T-6-I5-C
T-10-32-C
                                                                                                                                      C98970
                                                                                                              X10
                                                                                                                                      C98970
                    02
                                                                             VALUE :WK. CODE CODE IRAI.
VALUE :N M/M :
VALUE :Y XIO DATE DAYS :.
VALUE :MO DA YR :.
VALUE :MO DA YR :.
VALUE :MO DA YR :.
37450
                           T-33-49-C
                                                                                                                                      C98970
                                                PICTURE X[6]
PICTURE X[19]
PICTURE X[11]
PICTURE X[10]
PICTURE X[10]
37460
37470
                    02
                         T-50-55-C
                                                                                                                                      C98970
                          T-50-74-C
                                                                                                                                      C98970
                    02
                         T-75-85-C
T-80-95-C
T-96-105-C
37480
                                                                                                                                      C98970
37482
                    02
                                                                                                                                      C98970
37485
                    02
                                                                                                                                      C98970
                                                PICTURE X[14]
                                                                             VALUE SPACE.
37490
                         FILLER
                                                                                                                                      C98970
                           T-120-C
37500
                                                                                                                                      C98970
                    02
                   1RANPEPORT-TITLE-D SYNC.

102 CAR-CODE-D PICTURE X

102 T-120-D PICTURE X

NINES-8 PICTURE X
            01
37600
                                                                             VALUE SPACE.
37610
                                                                                                                                      C98970
                                                PICTURE XC1183
37620
                                                                                                                                      C98970
                                         PICTURE X
PICTURE 9
PICTURE 9
PICTURE 9
                                                                    VALUE :::.
SYNC VALUE 99999999.
37630
                                                                                                                                      C98970
                                                                                                                                      C98970
            10
46000
                                                                    SYNC VALUE
SYNC VALUE
SYNC VALUE
SYNC VALUE
SYNC VALUE
SYNC VALUE
                   JFLAG
IFLAG
                                                                                            ZERO.
46010
                                                                                                                                       C98970
46020
            10
                                                                                                                                      C98970
                                         PICTURE 9999
PICTURE 99
46030
                    PAOL-CHI
                                                                                            ZERO .
46050
            01
                   LINE-CNT PIC!URE 99
LINE-MAX-50 PIC!URE 99
                                                                                            ZERO.
                                                                                                                                      C98970
                                                                                            50.
                                                                                                                                      C98970
46060
                   LAST-1 PICTURE 9
UAY-NO PICTURE 59041.
46070
                                                                                                                                      C98970
                                                                                                                                      C98970
46080
            10
           OI DAY-NO PICTURE SQL41.
OI RCDS-ACCEPT PICTURE 9(6)
OI SPACE-CHT PICTURE 9(6)
OI LINES-OUT PICTURE 9(6)
PROCEDURE DIVISION.
                                                                    VALUE ZEROS.
SYNC VALUE
SYNC VALUE
46090
                                                                                            0.
46100
                                                                                                                                      C98970
46110
46120
                                                                    SYNC VALUE
                                                                                                                                      COROTO
                                                                                                                                      C98970
50000
           OPEN-FILES.

OPEN INPUT FILEACCPT.

OPEN INPUT FILEEVENT.

OPEN OUTPUT IRANOUT.

OPEN OUTPUT IRANEPORT.
                                                                                                                                       C98970
50010
50020
                                                                                                                                      CGAGTO
50030
50040
                                                                                                                                      C98970
                                                                                                                                      C98970
50050
            INITIALIZE-PAGE.
PERFORM TITLE-S THRU TITLE-S-END.
                                                                                                                                      C98970
50090
SOLIO
                                                                                                                                      C98970
            REAU-FIRST-EVENT.
50200
           REAU-FIRST-EVENT.

REAU FILEEVENT INTO FILEEVENT-IRAN-WORK2

AT END 30 TO EOF-FIRST-EVENT.

MOVE TYPE-CODE-2 TO TYPE-CODE-NXT-0.

ADD I TO RECORDS-READ.

COMPUTE SERIAL-7.3 SER-1-2-2 * 1000000 < SER-3-6-2.

CALC-START-FINISH-UNYS.

PERFORM DAY-MUMBERS THRU DAY-NUMBERS-END.
50210
                                                                                                                                      C98970
50220
                                                                                                                                      C98970
                                                                                                                                      C98970
C98970
50225
50227
50230
50240
                                                                                                                                      C98970
50250
                                                                                                                                      C98970
            NEW-SERIAL-/0.
50300
                                                                                                                                      C98970
                    IF SERIAL EQUAL SERIAL-T
50310
                                                                  OO TO SAME-120.
GO TO SAME-SERIAL-TEST-100.
                                                                                                                                      C98970
                                                                                                                                      C98970
                    GO TO READ-NEXT-ACCEPTANCE-DATE-BO.
                                                                                                                                       C98970
            DAY-HUMBERS.
50700
                                                                                                                                      C98970
                   MOVE ZERO TO DA NO-ST-NXT-O DA-NO-FN-T.
IF YR-SIRT-2 IS LESS THAN I GO TO FINISH-DAYS.
MOVE MO-STPT-2 TO IMO.
MOVE UA-STRT-2 TO IDA.
50710
                                                                                                                                      C98970
50715
                                                                                                                                       C98970
50720
                                                                                                                                      C98970
```

```
MOVE YR-STRT-2 TO IYR. PERFORM DAYS-BEFORE-AFTER-DEC-31-64 THRU DAYS-END.
50740
                                                                                                                           C98970
50750
                                                                                                                           C98970
50760
                  MOVE UAY-NO TO DA-NO-ST-NXT-O.
                                                                                                                           C98970
           FINISH-DAYS.
50800
                                                                                                                           C98970
                  IF MO-DUNE-2 EQUAL SPACE MOVE ZEROS TO MO-DONE-2. IF DA-DONE-2 EQUAL SPACE MOVE ZEROS TO DA-DONE-2. IF YR-10/NE-2 EQUAL SPACE MOVE ZEROS TO YR-DONE-2.
50802
                                                                                                                           C98970
50804
                                                                                                                           C98970
50806
                                                                                                                           CORSTO
50810
                  IF YR-DUNE-2 IS LESS THAN 1 GO TO CALC-FLIGHT-HRS-NXT.
                                                                                                                           C98970
                  HOVE MO-DONE-2 TO IDA.

MOVE YH-DONE-2 TO IYR.

PERFORD DAYS-BE ONE-AFTER-DEC-31-64 THRU DAYS-END.
50820
                                                                                                                           C98970
50030
                                                                                                                           C98970
50840
                                                                                                                           C98970
50850
                                                                                                                           C98970
                  MOVE DAY-NO TO DA-NO-FN-T.
50060
                                                                                                                           C98970
           CALC-FLIGHT-HRS-NXT.

IF FL-HRS-CUM-2 EQUAL SPACE MOVE ZEROS TO FL-HRS-CUM-2.

IF FL-O-TENTH-2 EQUAL SPACE MOVE ZEROS TO FL-O-TENTH-2.

COMPUTE FL-HRS-C-NXT-0 > FL-HRS-CUM-2 • 10 < FL-O-TENTH-2.
50870
50872
                                                                                                                           C98970
50875
                                                                                                                           C98970
          COMPUTE FL-HRS-C-NXT-O > FL-HRS-CUM-2 :

DAY-NUMBERS-END. EXIT.

DAYS-BEFONE-AFTER-D: C-31-64.

COMPUTE JUAY > IVA - 56.

COMPUTE JUAY > IDA < KDAYS (IMO).

IF JYH LOUAL 0 GO TO LEAP-YEAR.

IF JYH LOUAL 4 GO TO LEAP-YEAR.

IF JYH LOUAL 12 GO TO LEAP-YEAR.

IF JYH LOUAL 12 GO TO LEAP-YEAR.

IF JYH LOUAL 20 GO TO LEAP-YEAR.

IF JYH LOUAL 20 GO TO LEAP-YEAR.

ON THE LOUAL 20 GO TO LEAP-YEAR.

ON THE LOUAL 20 GO TO LEAP-YEAR.
508A0
                                                                                                                           C98970
50890
                                                                                                                           C98970
51000
51010
                                                                                                                          C98970
51020
                                                                                                                          C98970
51030
                                                                                                                           C98970
                                                                                                                           C98970
51050
                                                                                                                           C98970
51060
                                                                                                                           COAGTO
51070
51 480
                                                                                                                           C98970
51090
                  GO TO JULIAN-DAYS.
                                                                                                                           C98970
           LEAP-YEAP.
51100
                                                                                                                           C98970
           1F IMU IS LESS "HAN 3 GO TO JULIAN-DAYS.
ADD 1 TO JDAY.
JULIAN-DAYS.
                                                                                                                          C98970
51120
                                                                                                                           C98970
51130
                                                                                                                          C98970
                  COMPLITE DAY-NO > DAY-YEAR [JYR] C JOAY - 2922.
51140
51150
           DAYS-END.
                                                         EXIT.
                                                                                                                          COASTO
           TITLE-S.
ADD 1 TO PAGE-CI-T.
51300
                                                                                                                          C98970
51310
                                                                                                                          C98970
51320
                  MOVE PAGE-CHT TO PAGE-NO-A.
                                                                                                                          C98970
                 WRITE IMANREPORT-PRE FROM IRANREPORT-TITLE-B.
WRITE IMANREPORT-PRE FROM IRANREPORT-TITLE-B.
WRITE IMANREPORT-PRE FROM IRANREPORT-TITLE-C.
WRITE IMANREPORT-PRE FROM IRANREPORT-TITLE-D.
51330
                                                                                                                          C98970
51 350
                                                                                                                          C98970
51360
           TITLE-S-ENO. EXIT.

READ-NEXT-ACCEPTANCE-DATE-80.

READ FILEACCPT INTO FILEACCPT-IRANW
AT END GO TO SET-NINES-8-90.

ADD 1 TO RCDS-ACCEPT.
51370
                                                                                                                          COAGTO
52000
                                                                                                                          C98970
                                                                                                                          C98970
52020
                                                                                                                          C98970
52025
                                                                                                                          C98970
                  GO TO SAME-SERT L-TEST-100.
52030
                                                                                                                          COASTO
           SET-NINES-H-90.
MOVE NILES-8 TO SERIAL.
52440
52050
                                                                                                                          C98970
           SAME-SENI/L-TEST-100.

IF SEMIAL EQUAL SERIAL-T GO TO SAME-120.

IF SEMIAL TO JELES THAN SEMIAL-T

GO TO MEAD-NEXT-ACCEPTANCE-DATE-80.

MOVE :1: TO JELEG.
52060
                                                                                                                          C98970
52070
                                                                                                                          C98970
52080
                                                                                                                          C98970
52090
                                                                                                                          C98970
52100
52110
           SAME-12U.
                                                                                                                          C98970
                 IF IFLAU LOUAL PERU GO MOVE TYPE-CODE-NXT-S
                     IFLAU LOUAL ZEHO GO TO ACCPT-DATE-CODE-130.
VL 14FE-CODE-NXT-5 TO TYPE-CODE-NXT-0.
VL UA-NO-ST-NAT-5 TO DA-HO-ST-NXT-0.
52120
                                                                                                                          C98970
                                                                                                                          C98970
52140
                  MOVE UA-NO-ST-NAT-S
                                                                                                                          C98970
                                                         TO DA-NO-FN-T.
TO FL-HPS-C-NXT-O.
                  MOVE DA-NO-FN-S
52150
                                                                                                                          C98970
52160
                  MOVE FL-HHS-C-NXT-5
                                                                                                                          COAGTO
          ACCPT-DATE-CODE-130,
MOVE ZEHO
52170
                                                         TO VISIT-0 IFLAG.
52200
                                                                                                                          C98970
52210
                                                         TO ACCPT-DA-O.
                                                                                                                          C98970
                 MOVE ZEHO

IF JFLAG EQUAL ZERO MOVE DAY-NO-A TO ACCPT-DA-O
ACCPT-DA-R.
52220
                                                                                                                          C98970
52230
                                                                                                                          C98970
          MUVE ZENO TO JELAG.
REPLAT-SAME-SER-SAVE-PRIOR-140.
52240
52250
                                                                                                                          COASTO
                                                         TO SERIAL-O SERIAL-R.
TO SERIES-O SERIES-R.
TO MO-STRT-R.
52260
                 MOVE SENTAL-T
                                                                                                                          C98970
                  MOVE MO-STRI-2
52270
                                                                                                                          C98970
52260
                                                                                                                          C98970
52290
                  MOVL UA-STRT-2
                                                               DA-STRI-R.
                                                         TO
                                                                                                                          C98970
                  MOVE YR-STRT-2
MOVE MO-DONE-2
52300
                                                         TO
                                                               YR-STHT-H.
                                                                                                                          C98970
52310
                                                               MO-DONE-R.
                                                                                                                          C98970
                                                               DA-DONE-R.
52320
                  MOVE DA-DONE-2
                                                         to
                  MOVL YM-DONE-2
52330
                                                         10
                                                                                                                          COROTO
52340
                  MOVE TYPE-CODE-WXT-0
                                                         TO
                                                               TYPE-CODE-0 TYPE-CODE-R.
                                                                                                                          C98970
                                                         TO MH-EABON-O MH-LABOR-R.
TO FL-MRS-C-O FL-MNS-C-R.
TO DA-NO-ST-O DA-NO-ST-R.
52350
                  MOVE MH-LAROR-2
52360
                  MOVE FL-HRS-C-NYT-0
                                                                                                                          C98970
                  MOVL DA-NO-ST-NAT-0
52370
                                                                                                                          C98970
                  MOVI DA-NO-FN-T
52380
                                                         TO DA-NO-FN-O DA-NO-FN-R.
                                                                                                                          C98970
                 CALC.
                                                                                                                          COASTO
                  MOVE ZENO TO AGE-STRT+0 DURATION-DA-0
52390
                                                                                                                          C98970
                 IF ACCPI-DA-O EQUAL ZERO GO TO DURA-DA-CALC.

IF YR-STRT-H EQUAL ZERO GO TO DURA-DA-CALC.

COMPUTE AGE-STR*-0 > [DA-NO-ST-O - ACCPT-DA-O] / 7.
52410
                                                                                                                          C98970
52430
                                                                                                                          C98970
           DUHA-DA-CALC.
IF YR-STRI-R
                                                                                                                          COROTO
52450
                                         EQUAL ZERO () . O READ-NEXT-IRAN-EVENT.
```

```
IF YR-OUNE-R EQUAL ZERO GO TO READ-NEXT-IRAN-EVENT.
COMPUTE DURATION-DA-O > DA-NO-FN-O - DA-NO-ST-O.
READ-NEXT-IHAN-EVENT.
READ-ELF-EVENT.
                                                                                                                                                                                            C98970
52460
52470
                                                                                                                                                                                            C98970
52500
                                                                                                                                                                                            C98970
                            READ FILEEVENT .NTO FILEEVENT-IRAN-WORK2
AT END TO TO LAST-I-150.
ADD 1 TO RECORDS-READ.
52510
52520
                                                                                                                                                                                            C98970
                                                                                                                                                                                            C98970
52525
                            GO TO NEXT-VISI :- 160.
                                                                                                                                                                                            C98970
52530
52540
               LAST-1-150.

MOVE: 1: TO LAST-1.

NEXT-VISIT-160.

ADD 1 TO VISIT-U.

IF LAST-1 EQUAL ZERO MOVE TYPE-CODE-2 TO TTPE-CODE-NKT-0.

DAY-NOS-ANU-FLIGHT-HRS.

PERFORM OAY-NUMBERS THRU OAY-NUMBERS-END.

COMPUTE SERIAL-. > SER-1-2-2 & 1000000 < SER-3-6-2.

IF SERIAL-T EQUAL SERIAL-0 GO TO SER-SAME-180.

NEW-SERIAL-170-SAVE-NULL-OUTP.

MOVE TYPE-COUE-MAT-S.
                LAST-1-150.
                                                                                                                                                                                            C98970
52550
52560
                                                                                                                                                                                            COROTO
                                                                                                                                                                                            C98970
52570
52580
 52600
                                                                                                                                                                                             CGAGTO
                                                                                                                                                                                             C98970
52010
                                                                                                                                                                                             C98970
52630
                                                                                                                                                                                             C98970
                            MOVE TYPE-COLE-HAT-O TO TYPE-CO0E-NXT-S.
HOVL OA-NO-5'-NXT-O TO OA-NO-5T-NXT-S.
MOVE OA-NO-FN-T TO OA-NO-FN-S.
FL-HKS-L-NXT-O TO FL-HKS-C-NXT-S.
 52650
                                                                                                                                                                                             C98970
                                                                                                                                                                                            C98970
52060
 52670
                                                                                                                                                                                             C98970
                 MOVE FL-HMS-L-MAIL-U
END-FILE-MOVES-175.

MOVE ZENO TO TYPE-CODE-NXT-O
MOVE ZENO TO TYPE-COUE-NXT-R
MOVE ZENO TO INICRVAL-DA-O
MOVE ZENO TO INICRVAL-DA-R

MOVE ZENO TO INTERVAL-DA-R

INT-FL-HRS-C.
52680
                                                                                                                                                                                             C98970
52700
                                                                                                                                                                                             C98970
52710
                                                                                                                                                                                            C98970
 52720
                                                                                                                                                                                             C98970
                            MOVE ZERO TO FL-HKS-C-NXT-O
MOVE ZERO TO INTERVAL-DA-O
MOVE ZERO TO INTERVAL-DA-R
MOVE ZERO TO INTERVAL-WK-R,
MOVE ZERO TO INTERVAL-WK-O,
52730
                                                                                                                                                                                            C98970
52750
52760
                                                                                                                                                                                             C98970
                                                                                                                                                                                             C98970
52770
52775
                            MOVE :I: TO IFL'G.
IF LAST-I EQUAL :1: GO TO LAST-OUTPUT-195.
                                                                                                                                                                                             C98970
                                                                                                                                                                                             C98970
                  GO TO WHITE-OUTPUT-190. SER-SAME-180.
                                                                                                                                                                                             C98970
 52800
                                                                                                                                                                                             C98970
                            MOVE ZEKOS TO INTERVAL-DA-O.

MOVE ZEKOS TO INTERVAL-WK-O INT-FL-HRS-O.

IF YP-SIRT-2 EQUAL ZERO GO TO CALC-INTERVAL-WK.

IF YR-DONE-R EQUAL ZERO GO TO CALC-INTERVAL-WK.
52810
                                                                                                                                                                                             C98970
 52820
                                                                                                                                                                                             CORGIO
 52430
                                                                                                                                                                                             C98970
 52840
                                                                                                                                                                                             C98970
               CALC-INTERVAL-DA-C > OA-NO-ST-NXT-O - DA-NO-FN-O.

CALC-INTERVAL-DA-C IS NOT GREATER THAN ZERO
52850
                                                                                                                                                                                             C98970
 52860
 52870
                                                                                                                                                                                            C98970
52480
                            GO TO CALC-INT-FL-HRS.

COMPUTE INTERVAL-WK-0 > INTERVAL-DA-0 • 7 / 10.
 52890
                                                                                                                                                                                            COAGTO
52400
                                                                                                                                                                                            C98970
                  CALC-IN1-FL-HHS.

IF FL-HHS-C-NXT-O IS GREATER THAN ZERO GO TO TEST-2.
52410
52420
                                                                                                                                                                                            C98970
                                                GO TO WRITE-OUTPUT-190.
52430
                                                                                                                                                                                            C98970
                                                                                                                                                                                             C98970
                           IF FL-HKS-C-O I' GREATER THAN ZERO GO TO CALC-INTERVAL.
52950
                                                                                                                                                                                             C98970
52960
                                                GO TO WHITE-OUTPUT-190.
                                                                                                                                                                                            C98970
               CALC-INTERVAL.
 52470
                                                                                                                                                                                             C98970
52980
                           COMPUTE INT-FL-I.RS-0 > FL-HRS-C-NxT-0 - FL-HRS-C-0.
                                                                                                                                                                                             C98970
 53000
                  WRITE-OUTPUT-190.
                IF LAST-I EQUAL :1: GO TO ENO-FILE-MOVES-175.
LAST-OUTPUT-195.
 53090
                                                                                                                                                                                             C98970
                                                                                                                                                                                            C98970
53495
                            MOVE DURATION-OA-O
 53100
                                                                                         TO VISIT-R.
TO AGE-STRT-R.
TO DURATION-DA-R.
53110
53120
                                                                                                                                                                                             C98970
                                                                                                                                                                                             C98970
                                                                                        TO TYPE-CODE-NXT-R
 53130
                             MOVE TYPE-CODE-NXT-0
                                                                                                    TYPE-CODE-NXT-R.
                                                                                                                                                                                             C98970
                            MOVE FL-HRS-C-N: T-O
MOVE DA-NO-ST-N*T-O
53140
                                                                                                                                                                                            C98970
                                                                                         TO DA-NO-ST-NXT-R.
                                                                                                                                                                                             C98970
                            MOVE INTERVAL-DA-O

MOVE INTERVAL-WIN-O

MOVE INTERVAL-WIN-O

MOVE INTERVAL-WIN-O

MOVE INTERVAL-WIN-O

TO

INTERVAL-WIN-O

TO

INTERVAL-WIN-O

INTERVAL-WIN-O
                                                                                                                                                                                             COA970
                                                                                                                                                                                            C98970
53170
53180
 53500
                                                                                                                                                                                             C98970
                                                                                                                                                                                             C98970
53510
                            AOD 1 TO RECORD -PASS.

IF LAST-1 EQUAL : 1: 00 TO END-FILE-2-240.

AOD 1 TO LINE-CNT.
 53520
53530
                                                                                                                                                                                             C98970
 53550
                             IF IFLAG EQUAL ZENO
GO TO REPEAT-SA E-SER-SAVE-PRIOR-140.
                                                                                                                                                                                             C98970
                                                                                                                                                                                             C98970
 53560
                              IF LINE-CHT IS LESS THAN 50 GO TO PRINT-BLANK-LINE-220.
                  NEW-PAGE .
 53580
                                                                                                                                                                                             C98970
                            PERFORM TITLE-S THRU TITLE-S-ENO.

MOVE ZERO TO LINE-CNT.

GO TO NEW-SERIAL-70.
                                                                                                                                                                                             C98970
53590
 53600
                                                                                                                                                                                             COROTO
 53610
                                                                                                                                                                                             C98970
                  PHINT-BLANK-LINE-220.
 53620
                            WRITE INANREPORT-PRE FROM IRANREPORT-TITLE-D.
AOD 1 TO LINE-CPT.
AOO 1 TO SPACE-CNT.
GO TO NEW-SEHIAL-70.
 53630
                                                                                                                                                                                             CGRGTO
 53640
                                                                                                                                                                                             C98970
 53645
 53050
                                                                                                                                                                                             C98970
 53660
                  END-FILE-2-240.
                  RLOCK-CHECK.

COMPUTE KOUNT > RECORDS-PASS - [TRECORDS-PASS / 30] + 30].

IF KOU'IT EQUAL LEHO GO TO BLOCK-CHECK-2.
                                                                                                                                                                                             C98970
 62000
 62010
                                                                                                                                                                                             C98970
                                                                                                                                                                                             C98970
 62020
                  LOUPS. WRITE INANOUT-PHE FROM NINE.
 62040
                                                                                                                                                                                             C98970
                                                                                                                                                                                             C98970
62450
```

```
62060
                    ADD 1 TO KOUNT.
                                                                                                                                    C98970
            IF KOUNT IS LESS THAN 30 GO TO LOOPS. BLOCK-CHECK-2.
62070
62100
                                                                                                                                    C98970
                    COMPUTE LINES-OUT > 4 PAGE-CHT < RECORDS-PASS < SPACE-CHT.

COMPUTE KNT > LINES-OUT - [(LINES-OUT / 25] * 25].

IF KNT EQUAL 21'RO GO 10 CLOSE-FILES.
62110
                                                                                                                                    C98970
                                                                                                                                    C98970
62115
62120
            LOOP4.
WRITE IHANREPORT-PRE FROM IRANREPORT-TITLE-D.
62130
                                                                                                                                    C98970
62140
62150
                                                                                                                                    C98970
                    ADD 1 TO KNT.

IF KNT IS LESS THAN 25 GO TO LOOP4.
GO TO CLOSE-FILES.
                                                                                                                                    C98970
62160
                                                                                                                                     C98970
                                                                                                                                    C98970
            EOF-FIRST-EVENT.
DISPLAY : NO EVENTS : UPON CONSOLE.
63900
63910
                                                                                                                                    C98970
64000
            CLOSE-FILLS.
                                                                                                                                    C98970
                   SE-FILES.

CLOSE FILEACCPT WITH LOCK.

CLOSE FILEEVENT WITH LOCK.

CLOSE IRANO/IT WITH LOCK.

CLOSE IRANCEPORT WITH LOCK.

CLOSE IRANCEPORT WITH LOCK.

DISPLAY: ACCEP: IN: RCDS-ACCEPT UPON CONSOLE.

DISPLAY: EVENT IN: RECORDS-PASS UPON CONSOLE.

DISPLAY: EOJ C9897: UPON CONSOLE.

GORACK.
64010
                                                                                                                                    C98970
64020
64030
64040
                                                                                                                                    C98970
64100
                                                                                                                                    C98970
64110
                                                                                                                                    C98970
                                                                                                                                    C98970
64140
                   GOBACK .
64150
                                                                                                                                    C98970
                PLACE COBOL SOURCE BEFORE THIS CARD
/• PLACE COBOL SOURCE BEFORE 7HIS
//CHG.TFGN DD •,SPACE>(CYL,C1.1]]
TFG TU14 11 0012080

57 230A 091064 111664 834.7 1065
57 230A 100465 110965 1041.1 2066
57 231A 100465 110965 122468 1924.8 1068
57 231A 092864 120164 920.5 1065
57 231A 101465 111765 110961 2066
                                                                                                                                1440 CDS
                                             834.7 1065
:041.1 2066
1924.8 1068
920.5 1065
.189.1 2066
2004.7 1069
2680.0 10
                                                                                                                     01 88 74
01 4245 124 35
                                                                                                                                    79 65
88 33
14 79
                                                                                                                     01
57 231A
                 112068 030669
                                                                                                                     01 4507 128
               042071
111565 011766
112067 022168
021670 032970
570231A
                                              989.6
                                                            2066
57 232A
                                                                                                                     90
                                                                                                                                     90 52
57 232A
57 232A
                                                            1068
                                                                                                                     02 114 92
02 4140 140 73
                                               2036.6
57 235A
57 235A
                                              1002.3
                                                            2066
3066
                                                                                                                     03 85 30
03 96 63
03 3676 100 88
                070665 080665
                072666 091966
                                              211.0
57 235A
57 235A
                100266 123066
                                                             2066
                032169 052969
                                              1749.3
                                                            1069
                                                                                       2111
                                              1307.4
57 236A
                                                             2066
                                                                                                                     04 88 43
04 4117 112 76
                110267 011868
012270 032570
113065 012066
57 236A
57 236A
                                              .788.8
.292.9
                                                            1068
                                                            1070
                                                                                                                     04 3906 126 33
04 88 58
                                                                                                                     04 88
04 4110 113
57 237A
                                              1128.6
                                                             2066
57 237A
57 237A
                110467 021468
103069 011270
                                              1548.1
                                                            1068
                                                                                                                                          69
                                                                                                                      04 4145 136
                                                                                                                     05 90
05 105
05 4022 124
05 4878 136
57 241A
57 241A
57 241A
                031565 042165
                                               1134.6
                                                            2065
                                                                                                                                     90 37
                001466 080366
112466 012767
                                              1521.5
                                                                                                                                    105 50
                                                            3067
                                                             1067
                                              2650.4
57 241A
                111968 020369
                                                            1069
570241A
                042271
                                                             10
57 243A
57 243A
57 243A
                                                            2065
3066
1068
                                              1034.0
                012165 022865
                                                                                                                     05 76 37

05 90 38

05 4334 126 79

05 4394 150 65

04 97 55

04 3173 110 75

04 4507 136 65

02 100 50

02 3966 129 73

6896

08 93
                022366 040166
                011968 040360
                                               681.2
                                              2251.8
.332.4
'552.1
2147.9
57 243A
57 244A
                032670 060170
                                                            1070
                                                                                      11
                120665 012866
                                                            6265
               121366 022867
031169 050769
111765 010566
57 244A
57 244A
                                                             1067
                                                             1069
57 245A
                                              1083.5
                                                            2066
57 245A
570245A
               042268 071168 071070 091670
                                              .698.0
0217.2
                                                             1068
                                                             10
57 246A
                112764 022865
                                                             1065
                                                                                                                     08
57 246A
57 246A
               092666 110866
080768 101068
                                                             6267
                                              1856.2
                                                             1069
                                                                                                                     08 4345 127 65
                                                                                                                         6770
78 54
570246A
                102170 011371
                                              2333.1
572453A
                071564 090964
                                                             1065
                                                                                                                     09
                                                                                                                     09 93 46
09 105 36
09 4564 117 58
09 4433 132 65
08 69 39
08 85 37
572453A
                123064 021565
                                                             2066
               041766 052366
111667 021468
                                                            3067
572453A
                                              :159.7
572453A
                                              1554.5
               020570 051070
122964 020765
572453A
                                                             6370
572455A
                                                             2065
               122964 020765
041966 052666
103166 021367
052069 090369
121064 020665
042760 060366
                                                            6366
572455A
                                              246.8
                                              1395.8
                                                                                                                     08 4647 941
572455A
                                                                                                                                      94107
572455A
                                              .854.0
                                                             1068
572456A
                                                            2065
6366
                                                                                                                                          56
572456A
                                              1470.6
                                                                                                                     09
                                                                                                                                     85
                030267 053067
                                             1670.6
572456A
                                                            1067
                                                                                                                      09 4229
               063069 090869
010665 020165
                                                                                                                     09 5051 112 69
09 35
572456A
                                                            1068
572457A
                                                             2065
               042166 052766
011067 042567
                                                                                                                     09
                                                                                                                                         36
125
572457A
                                                             6366
572457A
                                                             1067
                                                                                                                                     76
76
30
88
48
100
71
125
67
572457A
572458A
               121168 022769 051765 061565
                                                                                                                     09
                                                             1069
                                             1069.0
                                                            2065
               052366 071166
041967 063067
071769 092469
                                              1426.0
                                                             6366
                                                                                                                     09
                                                            1067
                                                                                                                     09 3874 100 09 4341 125
572458A
                                              7143.4
572459A
               120164 012465
```

572459A	042766	061366	1277.3	6367
572459A	102067	011168	1526.3	1068
572459A	121169	021970	2032.6	1070
572460A	061265	071565		2065
572460A	U8 0 866	123066		1067
572460A	112268	022469	1654.0	1069
572460A	040671	01074	7248.8	10
572461A	110964	012765	1059.3	1065
572461A	051266	121068	2077.3	6369
572461A 572461A	092368	041571	2667.1	10
572463A	050565	060265	1371.0	2065
572463A	052566	072566	1663.0	6367
572463A	022767	050467	1818.0	1067
572463A	050669	071169	2263.7	1069
572464A	042865	U52065	1242.3	2065
572464A	051366	060166	1451.3	6366
572464A	120767	024968	1770.4	1068
572464A	020670	041870	2261.4	1070
572465A	000664	081864	505.6 719.3	1065
572465A	090265 071960	101165	895.9	6366 3067
572465A	070868	094068	1201.1	1068
572466A	120164	012465		2065
57446A	042766	060366	1382.7	6366
572466A	113066	022467	1587.3	1067
572466A	031369	052169	2002.4	1069
572466A	052771		L529.8	10
572467A	121664	012865		2065
572467A	041566	051766	1363.7	3066
572467A 572467A	090968	122868 031571	1905.2	1069
572469A	010571 122164	020965	249410	2065
572469A	042966	061366		6366
572469A	021667	032767		1067
572470A	U61764	083164		1064
572470A	122164	020665		2065
572470A	050266	060666	1467.1	6366
572470A	U82167	120667	1703.1	1067
572470A	080669	102069	2073.1	1070
572472A 572472A	091964 042166	052666		1064 6366
572472A	040368	061768		1068
572473A	120764	012465		2065
572473A	050266	062566	1533.5	6366
572473A	052867	083067	1743.8	1067
572473A	082269	102969	2116.4	1070
572475A 572475A	081264 010465	110364		1065 2065
572475A	041566	052766	1491.3	6366
572475A	050968	072368	1925.5	1068
572475A	071670	092370	2458.4	10
572476A	010465	020465		2065
572476A	042266	060666	1000 6	6366
572476A 572476A	032668	060668 041070	1892.6	1068
572477A	012870 121864	020965	622217	2065
572477A	042166	060366	1451.6	6366
572477A	090566	120366	1506.3	1067
572477A	122168	030769	1925.4	1069
572478A	030163	121063	885.1	1164
572478A	051065	001165	1358.4	2065
572478A	052466	064966	1628.1	6366
572478A	021268		2040.6	1068
572478A	030370	050870	2484.0	1070
572480A 572480A	101664	121464	1010.9	1065 2065
572480A	050365 051166	064766	1399.2	6366
572480A	071268	091868	1948.4	1069
572480A	090970	112470	2415.9	10
572481A	081764	110364		1065
572481A	042965			2065
572481A	051066	062066		6366
572481A 574481A	041968	070868	2441 8	1068
572482A	070670 051965	090870 061865	2491.5	10 2065
572482A	050666	060166	1696.1	6366
572482A	110967	012368	4032.5	1068
572482A	010670	031770	2515.9	1070
572483A	050465	060165	1418.0	2065
572483A	051366	064066	1663.2	6366
572483A	100266	011067	1738.4	1067
572483A	102568	011369	2219.4	1069
572483A 572485A	061571 051165	061065	2817.0 1406.0	10 2065
572485A	051866	062766	1707.3	6366

09 09 09	4079 4081	74 102 121	47 81 69
09 09 09	4995	118	33 142 92
09 09 09	4363	68 85 112	78 40 76
09 09 09	6919 3696 4430	61 86 97	28 21 67 65
09 09 09 09	4157 4165	72 84 102 126	30 18 81
10 10 16 10 08	3820	61 74 88 110 66	73 37 42 71 54
08 08 08	3778 5240	88 81 121	36 84 67
08 08 08	4946 6936	66 81 113	42 32 78
80 80 80	4143	51	48 45 71 56
08 08 08 00 08	5339	65 81 98 122	45 34 105 74 51
08 08 08 08	5773	67 85 96	35 74 47 50 92
08 08 08	4674	120	67 81 31 42
80	4081 6431		74 35
08 08 08 08	3477 4351	84	70 72 51 42
08 08 09 09	4060 4252	86 114 53 70	88 76 280 31
09 09 09 09	3896 4600 3476	82 104 129 66 70	35 72 65 58 25
09 09 09	4697 7262	109	46 66 76
09 09 09	3389 6940	70	28 40 79 30
09 09 09	4215	82 101 127 70	24 74 39 27
09 09	3518 4868	82 88 112	37 91 78
09		69	30 39

572495A	010567	032567	1791.8	1067		09 3438	90 80
5724854	022069	043069	2270.7	1069		U9	115 70
572486A		112764		1065		09	69
				2065		09	27
572486A		052465					
572486A		062766		6366		09	37
572486A	021968	043068		1068		09 3988	71
572486A	031770			1070		09 4766	
572487A		001065	1309.9	2065		09	69 27
572487A		06∠266	1530.3	6366		09	81 47
572487A	050967	072567	1777.3	1067		09 4987	93 74
572487A	091269	111969	291.1	1070		09 4269	122 97
572490A		061465	1180.0	2065			69 30
572490A		071366	1452.3	6366	1		81 47
572490A	051867	072 967	1717.5	1067	1	09 3979	93 71
572490A	092469	120269	2217.7	1070	1	09 5171	121 86
572491A		060865	917.3	2065		09	69 42
572491A		061166	1227.2	6366		09	81 45
572431A	080167	102367	1495.0	1068		09 4081	97 83
572491A	112469	021070	2718.5	1070		09 3954	124 76
572492A	042064	071564		1064		09	85
572492A		081165		2065		09	34
572492A		070666		6366		09	47
5724924	U50868	071968		1068		09 3726	71
572493A	061065	071665		2065		08	36
572493A		012767		6367		08 3535	112
		041469	1984.3	1069			114 68
572493A			1-0-13				
572494A		080764		1064		08	57 98
572494A	052765	062565		2065		08	69 28
572494A		102266	1517.6	6366		08	86 50
			2120.1				
572494A		112568	2120.1	1069		08 4992	
5724 95A		082764		1064		08	58 72
572495A	000765	070665	1310.8	2065		0.6	70 30
512475A		110166	1549.4	6367		08	86 42
572435A		092768	2082.4	1069			
						08 3871	108 63
572495A		102270	2510.6	10		7715	
572496A	052465	062965		2065		11	35
572496A	090666	101166		6367		11	35
572436A		021568	1855.8	1068		11 4123	74
572496A		610770	2348.0	1070		11 4786	99
572497A	U60765	071265		2064		08	71 35
572497A	090166	101866		6366		0.6	86 47
572437A		041367	1422.1	1067		08 3896	89 91
572437A		052269	1873.1	1069			115 76
572499A	060765	07u865	1)54.8	2065		08	70 31
5724 39A	091366	110266	1397.4	6366		08	78 49
572499A		061667	1513.4	1067			93 72
572499A		100369	1967.2	1070		08 5792	
572500A	052665	062865		2065		08	32
572500A	091266	101466		6367		08	32
5725U0A		022567	1591.2	1067		08 3221	72
			2379.A	1069			
5725U0A		UHU169	£31740			08 5364	77
572501A		103164		1065		08	58 64
572501A	052065	001765		2065		0.8	68 27
572501A	092666	110866		6366		08	84 43
572501A		032069	1971.3	1069		08 4984	
		032009				00 4904	124 01
572501A	032571		2489.A	10			
572502A		113064		1065		08	61 60
572502A	052465	061865		2065		08	67 24
572502A		100666		6367		08	69 41
572502A		124768	2989.0	1069		08 2089	
		_					
572503A		071465	1122.6	2066		08	69 30
572503A		102266	1 116.7	6367		08	84 37
572503A	061267	083167	1584.2	1067		08 5651	104 78
572503A		102169	2004.4	1070		08 5461	
572504A		070265		2065		08	70 30
			15.0 0			• •	
572504A		102166	1518.0	6366		08	84 35
572504A	012368	04u168	1838.9	1068		08 4493	112 38
572504A		022270	2211.1	1070		. 08 4879	125 76
572505A		063065		2065		08	69 34
			1521 6				
572505		101366	1521.8	6367		08	82 44
572505A		040568	1847.8	1068		08 4380	
572505A	121069	022270	2786.3	1070		08 4140	124 72
572506A		063065		2065	1	08	70 30
572506A		102666	1717.4	6367	i		
						08	85 48
572506A		072468	2058.2	1068	1	08 3895	105 80
		•		1070	1	08	
572506A	060570		191.5	2066		12	69 43
		090265		1067		12	
5725088	071965	090265 050367				14	
5725088 5725088	071965 012867	05v 3 67	1356.0				76 96
5725088 5725088 5725088	071965 01286 7 090269	050 3 67 011970	1356.0 2009.8	1069		12 4865	120137
5725088 5725088 5725088 5725098	071965 012867 090269 102764	050 3 67 011970 123064	1356.0 2009.8 393.1	1069 1065		12 4865 13	120137 76 64
5725088 5725088 5725088	071965 012867 090269 102764	050 3 67 011970	1356.0 2009.8	1069		12 4865	120137
5725088 5725088 5725088 5725098 5725098	071965 012867 090269 102764 030866	050367 011970 123064 041566	1356.0 2009.8 393.1 1308.1	1069 1065 6366		12 4865 13 13	120137 76 64 93 37
5725088 5725088 5725088 5725098 5725098 5725098	071965 012867 090269 102764 030866 010268	050367 011970 123064 041566 033168	1356.0 2009.8 393.1 1308.1 1799.1	1069 1065 6366 1068		12 4865 13 13 14 4228	120137 76 64 93 37 114 89
5725088 5725088 5725088 5725098 5725098 5725098 5725098	071965 012867 090269 102764 030866 010268 021170	050367 011970 123064 041566 033168 050570	1356.0 2009.8 393.1 1308.1 1799.1 2389.5	1069 1065 6366 1068 1070		12 4865 13 13 14 4228 14 5674	120137 76 64 93 37 114 89 141 84
5725088 5725088 5725088 5725098 5725098 5725098 5725098 5725098 5725108	071965 012867 090269 102764 030866 010268 021170 082365	050367 011970 123064 041566 035168 050570 101265	1356.0 2009.8 393.1 1308.1 1799.1 2389.5 1108.1	1069 1065 6366 1068		12 4865 13 13 14 4228	120137 76 64 93 37 114 89
5725088 5725088 5725088 5725098 5725098 5725098 5725098	071965 012867 090269 102764 030866 010268 021170	050367 011970 123064 041566 035168 050570 101265	1356.0 2009.8 393.1 1308.1 1799.1 2389.5	1069 1065 6366 1068 1070		12 4865 13 13 14 4228 14 5674	120137 76 64 93 37 114 89 141 84 82 49
5725088 5725088 5725088 5725098 5725098 5725098 5725098 5725108 5725108	071965 012867 090269 102764 030866 010268 021170 082365 051368	050367 011970 123064 041566 033168 050570 101265 080168	1356.0 2009.8 393.1 1308.1 1799.1 2389.5 1108.1 1559.9	1069 1065 6366 1068 1070 2066 1068		12 4865 13 13 14 4228 14 5674 12	120137 76 64 93 37 114 89 141 84
5725088 5725088 5725088 5725098 5725098 5725098 5725098 5725098 5725108	071965 012867 090269 102764 030866 010268 021170 082365	050367 011970 123064 041566 033168 050570 101265 080168 112370	1356.0 2009.8 393.1 1308.1 1799.1 2389.5 1108.1	1069 1065 6366 1068 1070 2066		12 4865 13 13 14 4228 14 5674	120137 76 64 93 37 114 89 141 84 82 49

5725128	011267	042767	1260.2	1067		13	97105
572512b	061669		1832.4	1069		13 6353	127 97
5725140	102865	122365	1082.7	6266		02	72 55
5725140		030467	1363.1	1067		02	85 89
5725146		061869	1933.1	1069		02 4808	
5725158		123064	840.1	1065		15	57 79
5725158	040665		340.0	2065		15	62 41
572515b	031566		1112.6	6366		15	74 44
			1560.6	1068			110 88
5725150	032668	062668					110 00
572515B	071470	092570	2347.5	10 1065		7633	70 70
5725176	111864		7			08	
5725176	060265		755.2	2065		08	40
5725176		102166	1051.4	6367		08	88 60
5725176		091368	1-35-1	1069		08 4116	109 85
5725178		122670	1307.1	10		8673	
5725188	042365	061865	847.0	2065		09	68 55
5725188	U51766	09u866	1027.5	6367		09	81111
5725188	073166	100868	1329.3	1069		09 4867	106 69
5725188	111870	021671	2111.8	10		8505	
5725208	051265	063065	1220.1	2065		09	70 48
57252 15		070166	1417.1	6366		09	81 57
5725208		031667	1 96.5	1067		09	88137
5725208		043069	1951.5	1069			115 84
5725208	040271	043007	2281.8	10			
		04.4466	710.9	2066		12	79
5725216		040466	1 26.1	1069		12 5160	
5725216		011069				12	142 70
5725216	012270		1418-1	1070	1		70 44
572522ti		U7UA65	661.0	2065		0.8	
5725226		110166	1.69.7	6367		0.8	86 62
5725226		063067	1309.2	1067		08	94 85
5725226	041669	071769	1693.0	1069		08 5790	117 91
5725226	060371		€380.2	10			
572524B	U72364	093064	783.1	1065		80	60 67
5725248	061565	U00665	1015.0	2065		08	72 51
5725248	042166	112166	1340.8	6367		08	79 60
5725248		051668	1361.2	1068		08 4611	113 96
5725248	042870			1070 .		08	129
5745268		083164		1064		08	58
5725266		062465		6265		08	56
5725260		071506		3066		08	69
				1064		12	57 67
5725276		070664					66 69
5725278		022365		6165		12	
5725270		052366	1285.7	6366		12	81 42
5725278	113068	022769	1 '86 . 9	1069		12 6086	112 88
572527B	031771		2778.3	10			
5725288	110364	022865		1065		12	57115
572528B		061366	J19.4	6366		12	81 55
572528B		020769	1314.4	1068		12 6502	110 84
572528B		032371	1704.6	10		7321	
572530B		122063	586.0	1163		12	42305
572530B		103065	775.3	1066		12	66114
572530b		071967	1080.7	1067		12	90128
						-	124 83
572530B		022370	1561.6	1070		12 6091	59
572531B	123064	uzzona		6265		. 2	
5725328			344 0			12	
		090765	741.8	6266		12	68 51
5725326	063066	090765 112968	1747.3	6266 1069		12	68 51 105 90
5725336	063066 092264	090765 112968 113064	1747.3 698.0	6266 1069 1965		12 12 03	68 51 105 90 57 68
	063066 092264	090765 112968	1747.3	6266 1069		12	68 51 105 90
5725336	063066 092264 083065	090765 112968 113064	1747.3 698.0	6266 1069 1965		12 12 03 03	68 51 105 90 57 68
5725336 5725338	063066 092264 083065 080266	09u765 112968 113064 101265	1747.3 698.0 1357.0	6266 1069 1965 2066		12 12 03 03	68 51 105 90 57 68 69 44
5725336 5725338 5725336	063066 092264 083065 080266 062066	090765 112968 113064 101265 092366	1747.3 698.0 1357.0 1339.9	6266 1069 1965 2066 6367		12 12 03 03	68 51 105 90 57 68 69 44 81 52
5725336 5725338 5725336 5725338	063066 092264 083065 080266 062066 101470	090765 112968 113064 101265 092366 103168	1747.3 698.0 1357.0 1239.9 1545.4	6266 1069 1865 2066 6367 1069		12 12 03 03 03 03	68 51 105 90 57 68 69 44 81 52
5725336 5725338 5725336 5725338 5725338 5725356	063066 092264 083065 080266 062066 101470 040364	090765 112968 113064 101265 092366 103168 010671 072464	1747.3 698.0 1J57.0 1239.9 1545.4 2140.8	6266 1069 1865 2066 6367 1069 10		12 12 03 03 03 03 03 4786 7972	68 51 105 90 57 68 69 44 81 52 70
5725336 5725338 5725336 5725338 5725338 5725358 5725358	063066 092264 083065 080266 062066 101470 040364 072265	090765 112968 113064 101265 092366 103168 010671 072464 100465	1747.3 698.0 1J57.0 1739.9 1545.4 2140.8 .51.2 1*34.5	6266 1069 1865 2066 6367 1069 2064 2064		12 12 03 03 03 03 4786 7972 03	68 51 105 90 57 68 69 44 81 52 70 52111 64 42
5725336 5725338 5725336 5725338 5725338 5725358 5725358 5725358 5725358	063066 092264 083065 080266 062066 101470 040364 072265	09u765 112968 113064 101265 092366 103168 01u671 072464 10u465 081066	1747.3 698.0 1J57.0 1739.9 1545.4 2140.8 .51.2 1*34.5 1389.7	6266 1069 1965 2066 6367 1069 10 2064 2066		12 12 03 03 03 03 4786 7972 03 03	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43
5725336 5725338 5725336 5725338 5725338 5725358 5725358 5725358 5725358	063066 092264 083065 080266 062066 101470 040364 072265 062766 093067	090765 112968 113064 101265 092366 103168 010671 072464 100465 081066 010268	1747.3 698.0 1357.0 1739.9 1545.4 2140.8 .751.2 1734.5 1389.7 1700.3	6266 1069 1965 2066 6367 1069 10 2064 2066 6366 1068		12 12 03 03 03 03 4786 7972 03 03 03 03 5121	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93
5725336 5725338 5725336 5725338 5725338 5725358 5725358 5725358 5725358 5725358	063066 092264 083065 080266 062066 101470 040364 072265 062766 093067 102069	090765 112968 113064 101265 092306 103168 010671 072464 100465 081066 010268 011970	1747.3 698.0 1357.0 1239.9 1245.4 2140.8 .51.2 1*34.5 1389.7 1700.3 2, 26.5	6266 1069 1065 2066 6367 1009 10 2064 2066 6366 1068		12 12 03 03 03 03 4786 7972 03 03 03 03 03 6146	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93 118 89
5725336 5725336 5725336 5725338 5725338 5725358 5725358 5725358 5725358 5725358	063066 092264 083065 080266 062066 101470 040364 072265 093067 102069 060165	09u765 112968 113064 101265 09u366 103168 01u671 072464 10u465 081066 01u268 011970 08u365	1747.3 698.0 1357.0 1239.9 1545.4 2140.8 .51.2 1°34.5 1389.7 1/00.3 2.26.5 863.9	6266 1069 1965 2066 6367 1069 10 2064 2066 6366 1068 1070 6266		12 12 03 03 03 03 4786 7972 03 03 03 03 03 03 5121 03 6146 12	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93 118 89 69 32
5725336 5725338 5725338 5725338 5725338 5725358 5725358 5725358 5725358 5725356 5725368 5725368	063066 092264 083065 080266 062066 101470 040364 072265 062766 093067 102069 060165	09u765 112968 113064 101265 09u366 103168 01u671 072464 10u465 001066 01u268 011970 08u365 112169	1747.3 698.0 1357.0 1359.9 1545.4 2140.8 .51.2 1°34.5 1389.7 1,00.3 2,26.5 863.9	6266 1069 1965 2066 6367 1069 10 2064 2066 6366 1068 1070 6266		12 12 12 03 03 03 03 03 4786 7972 03 03 03 03 5121 03 6146 12	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93 118 89 69 32 112244
5725336 5725336 5725338 5725338 5725338 5725358 5725358 5725358 5725358 5725368 5725368 5725368 5725368	063066 092264 083065 080266 062066 101470 040364 072265 062766 093067 102069 0017665	090765 112968 113064 101265 0903168 010671 072464 100465 081066 010268 011970 080365 112169 091765	1747.3 698.0 1357.0 1739.9 1545.4 2140.8 .551.2 1734.5 1700.3 2, 26.5 A63.9 1062.2 152.3	6266 1069 1965 2066 6367 1069 10 2064 2066 6366 1068 1070 6266		12 12 03 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93 118 89 69 32 112244 68 82
5725336 5725336 5725336 5725338 5725338 5725358 5725358 5725358 5725358 5725356 5725368 5725368 5725368 5725378 5725378	063066 092264 083065 080266 062066 101470 040364 072265 093067 102069 060165 031769 062766	090765 112968 113064 101265 092366 103168 010671 072464 100465 010268 010268 010265 112169 091765	1747.3 698.0 1J57.0 1739.9 1545.4 2140.8 251.2 1734.5 1389.7 1700.3 2.26.5 P63.9 1062.2 152.3	6266 1069 1965 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1969 2065		12 12 13 03 03 03 03 03 03 03 03 03 03 03 03 6146 12 12 12	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93 118 89 69 32 112244
5725336 5725338 5725338 5725338 5725358 5725358 5725358 5725358 5725368 5725368 5725368 5725368 5725378 5725378	063066 092264 083065 080266 062066 101470 040364 072265 062766 093067 102069 060165 031769 072665 072665 072665	09u765 112968 113064 101265 09u366 103168 01u671 072464 10u465 081066 01u268 011970 081065 112169 091765 091768 02U571	1747.3 698.0 1J57.0 1239.9 1545.4 2140.8 .51.2 1*34.5 1389.7 1/00.3 2.26.5 863.9 1062.2 U52.3 1286.0 1884.8	6266 1069 1965 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1969 2065		12 12 13 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12	68 51 105 90 57 68 69 48 81 52 70 52111 64 42 78 43 93 93 118 89 118 89 12244 68 82 102 51
5725336 5725336 5725338 5725338 5725350 5725350 5725358 5725358 5725358 5725368 5725368 5725378 5725378 5725378 5725378	063066 092264 063065 080266 062066 101470 040366 072265 062766 093067 102069 060165 051769 072665 062766 062766 062766 070165	090765 112968 113064 101265 092366 0105168 010671 072464 100465 081066 010268 011970 080365 112169 091765 091765 091765 091765	1747.3 698.0 1J57.0 1339.9 1545.4 2140.8 .511.2 1.34.5 1389.7 1/00.3 2,26.5 .663.9 1082.2 152.3 1786.0 1884.8 103.7	6266 1069 1045 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1068 1070 6266 1068		12 12 13 03 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93 118 89 69 32 112244 68 82 102 51 67 34
5725336 5725336 5725336 5725338 5725358 5725358 5725358 5725358 5725356 5725368 5725368 5725378 5725378 5725378 5725378 5725378 5725388 5725388	063066 092264 083065 080266 080266 040364 072265 062766 093067 112069 001165 051769 072665 042766 103070 070165	090765 112968 113064 101265 092366 103168 010671 072464 100465 081066 010268 011970 080365 112169 091765 091968 020571 080365 011367	1747.3 698.0 1357.0 1739.9 1545.4 2140.8 .51.2 1389.7 1,00.3 2,26.5 1062.2 1052.3 1086.0 1884.8 1003.7 1,79.1	6266 1069 1965 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1969 2065		12 12 13 03 03 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 521111 64 42 78 43 93 93 118 89 69 32 112244 68 82 102 51 67 34 81110
572536 5725336 5725336 5725338 5725350 5725350 5725358 5725358 5725358 5725368 5725366 5725378 5725378 5725378 5725378 5725378 5725388 5725388 5725388	063066 092264 083065 080266 080266 040364 072265 062766 093067 112069 001165 051769 072665 042766 103070 070165	090765 112968 113064 101265 092366 0105168 010671 072464 100465 081066 010268 011970 080365 112169 091765 091765 091765 091765	1747.3 698.0 1J57.0 1239.9 1545.4 2140.8 .51.2 1:34.5 1389.7 1/00.3 2.26.5 1063.9 1062.2 L52.3 1286.0 1884.8 1003.7 1.79.1 1809.1	6266 1069 1965 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1969 2065 1068		12 12 13 03 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 521111 64 42 78 43 93 93 118 89 69 32 112244 68 82 102 51 67 34 81110
5725336 5725336 5725336 5725338 5725358 5725358 5725358 5725358 5725356 5725368 5725368 5725378 5725378 5725378 5725378 5725378 5725388 5725388	063066 092264 083065 080266 062066 101470 040364 072265 062766 031769 072665 062766 1070165 093067 070165 0930369	090765 112968 113064 101265 092366 103168 010671 072464 100465 081066 010268 011270 080365 112169 091765 091765 091968 020571 080365 011367 052969	1747.3 698.0 1357.0 1739.9 1545.4 2140.8 .51.2 1389.7 1,00.3 2,26.5 1062.2 1052.3 1086.0 1884.8 1003.7 1,79.1	6266 1069 1965 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1969 2065		12 12 13 03 03 03 03 03 03 03 03 03 03 03 6146 12 12 12 12 12 12 12 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93 118 89 69 32 112244 68 82 102 51 67 34 81110 112 86
572536 5725336 5725336 5725338 5725350 5725350 5725358 5725358 5725358 5725368 5725366 5725378 5725378 5725378 5725378 5725378 5725388 5725388 5725388	063066 092264 083065 080266 062066 101470 040364 072265 062766 031769 072665 062766 1070165 093067 070165 0930369	090765 112968 113064 101265 092366 103168 010671 072464 100465 081066 010268 011970 080365 112169 091765 091968 020571 080365 011367	1747.3 698.0 1J57.0 1239.9 1545.4 2140.8 .51.2 1:34.5 1389.7 1/00.3 2.26.5 1063.9 1062.2 L52.3 1286.0 1884.8 1003.7 1.79.1 1809.1	6266 1069 1965 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1969 2065 1068		12 12 13 03 03 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 521111 64 42 78 43 93 93 118 89 69 32 112244 68 82 102 51 67 34 81110
5725336 5725336 5725338 5725338 5725358 5725358 5725358 5725358 5725368 5725368 5725378 5725378 5725378 5725378 5725388 5725388 5725388 5725388 5725389 5725389	063066 092264 083065 080266 062066 101470 040364 072265 062766 093067 102069 072665 042766 103070 070166 042766 042766 042766 042766 042766 042766 042766	09u765 112968 113064 101265 09u366 103168 01u671 072464 10u465 081066 01u268 01u268 01u365 112169 091768 02u571 08u365 011367 05u969	1747.3 698.0 1357.0 1239.9 1545.4 2140.8 .51.2 1389.7 1,00.3 2,26.5 963.9 1062.2 .52.3 186.0 1884.8 1003.7 1,79.1 1809.1 2397.2	6266 1069 10465 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1069 10 6266 1068 10 10 10 10 10 10 10 10 10 10 10 10 10		12 12 13 03 03 03 03 03 03 03 03 03 03 03 6146 12 12 12 12 12 12 12 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93 118 89 69 32 112244 68 82 102 51 67 34 81110 112 86
572536 5725336 5725336 5725330 5725350 5725350 5725358 5725358 5725358 5725366 5725366 5725376 5725378 5725378 5725378 5725378 5725380 5725380 5725380 5725380 5725380 5725380 5725380 5725380 5725380 5725380 5725380 5725380 5725380	063066 092264 083065 080266 062066 101470 072265 062766 093067 102069 0031769 072665 062766 0031769 072665 00370 070165 092366 0	090765 112968 113064 101265 092366 103168 010671 072464 100465 081066 010268 011270 080365 112169 091765 091765 091968 020571 080365 011367 052969	1747.3 698.0 1J57.0 1239.9 1545.4 2140.8 .51.2 1:34.5 1389.7 1/00.3 2.26.5 1063.9 1062.2 152.3 1286.0 1884.8 1003.7 1.79.1 1809.1 2397.2 1,65.3 1/51.0	6266 1069 1965 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1969 2065 1068 10 0266 1067		12 12 13 03 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12 12 12 12 12 12 12 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93 118 89 69 32 112244 68 82 102 51 67 34 81110 112 86 68 52 88 75
5725336 5725336 5725338 5725338 5725358 5725358 5725358 5725358 5725368 5725368 5725378 5725378 5725378 5725378 5725388 5725388 5725388 5725388 5725389 5725389 5725389 5725389	063066 092264 083065 080266 062066 101470 040364 072265 062766 031769 072665 062766 072665 07	09.765 11.2968 11.3064 10.1265 09.2366 10.3168 01.0671 07.2464 10.0465 081.066 01.0268	1747.3 698.0 1957.0 1739.9 1545.4 2140.8 .51.2 1734.5 1700.3 2, 26.5 863.9 1062.2 1052.3 1786.0 1003.7 1179.1 12397.2 1465.3 1751.0 2109.6	6266 1069 10465 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1068 1009 2065 1068 10 0 6266 1067 1069 10 6266		12 12 13 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12 12 12 12 12 12 12 12 12 12 12	68 51 105 90 57 68 69 44 81 52 78 43 91 89 91 89 69 32 112244 68 82 102 51 67 34 81 110 112 86 68 52 88 75 118 83
5725336 5725338 5725338 5725338 5725358 5725358 5725358 5725358 5725368 5725368 5725378 5725378 5725378 5725378 5725388 5725388 5725388 5725388 5725389 5725389 5725389 5725389 5725396 5725396 5725396 5725396 5725396	063066 092264 083065 080266 062066 101470 040364 072265 062766 093067 102069 072665 042766 103070 070166 030369 050371 111869 080266	09u765 112968 113064 101265 09u366 103168 01u671 072464 104065 01u268 01u268 01u268 01u268 01u268 01u365 112169 091765 091968 02u571 08u365 01u367 05u365 01u367 05u365	1747.3 698.0 1357.0 1239.9 1545.4 2140.8 .51.2 1389.7 1,00.3 2,26.5 863.9 1062.2 .52.3 186.0 1884.8 1003.7 1,79.1 1809.1 2397.2 151.0 2109.6	6266 1069 1069 1065 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1069 1069 1069 1068 10 6266 1067 1069 10 6266 1067 1070 6266		12 12 13 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12 12 12 12 12 12 12 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 52111 64 43 93 93 118 89 69 32 112244 68 82 102 51 67 34 81110 112 86 68 52 88 75 118 83 68 36
5725336 5725336 5725338 5725350 5725350 5725358 5725358 5725358 5725368 5725368 5725378 5725378 5725378 5725378 5725378 5725378 5725378 5725380 5725390 5725390 5725390 5725390 5725390 5725390 5725390 5725390 5725390 5725390 5725390 5725390 5725390 5725390 5725390 5725390 5725400 5725400	063066 092264 083065 080266 062066 101470 072265 062766 093067 102069 00165 062766 1031769 072665 062766 03371 070165 092366 093371 080665 093371 1080665 094266 094267 094267 094267 094267	09u765 112968 113064 101265 09u366 103168 104671 072464 10u465 081066 01u268 011770 080365 112169 091765 091968 020571 080365 011367 052969	1747.3 698.0 1J57.0 1239.9 1545.4 2140.8 .51.2 1:34.5 1389.7 1/00.3 2.26.5 1063.9 1062.2 L52.3 1286.0 1884.8 1003.7 1.79.1 1809.1 2397.2 1.65.3 1/51.0 2109.6 1033.3 1/81.1	6266 1069 1965 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1969 2065 1068 10 6266 1067 1069 10 6266 1067 1070 6266		12 12 13 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12 12 12 12 12 12 12 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93 118 89 69 32 112244 68 82 102 51 67 34 81110 112 86 68 52 88 75 118 83 68 36 90 95
5725336 5725336 5725338 5725338 5725358 5725358 5725358 5725358 5725366 5725378 5725378 5725378 5725378 5725388 5725388 5725388 5725389 5725389 5725389 5725398 5725398 5725398 5725398 5725398 5725398 5725398 5725398 5725398 5725398 5725398 5725398 5725398 5725398 5725398 5725398 5725398	063066 092264 083065 080266 062066 101470 072265 062766 031769 072665 052766 072665 07	09.765 11.2968 11.3064 10.1265 09.2366 10.3168 01.0671 07.2464 01.0268	1747.3 698.0 1957.0 1739.9 1545.4 2140.8 .51.2 1734.5 1700.3 2,26.5 863.9 1062.2 152.3 1786.0 81003.7 1779.1 12397.2 1451.0 2109.6 1033.3 1481.1 2759.8	6266 1069 10465 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1068 10 0 6266 1067 1069 10 6266 1067 1070 6266		12 12 13 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12 12 12 12 12 12 12 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93 118 89 69 32 112244 68 82 102 51 67 34 81110 112 86 68 52 88 75 118 89 90 95 120 88
5725336 5725338 5725338 5725338 5725358 5725358 5725358 5725358 5725358 5725368 5725378 5725378 5725378 5725378 5725388 5725388 5725388 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725396 5725400 5725400 5725418	063066 092264 083065 080266 062066 101470 040364 072265 062766 093067 102069 072665 042766 103070 0701665 042765 042366 04265 042366 04265 04266 04265 04266	09.765 11.2968 11.3064 101.265 09.2366 10.3168 01.0671 07.2464 100.268 01.0268 01.0268 01.0268 01.0268 01.0365 11.2169 091.765 091.765 01.0367 05.2969	1747.3 698.0 1357.0 1239.9 1545.4 2140.8 .51.2 1389.7 1,00.3 2,26.5 863.9 1062.2 .52.3 186.0 1884.8 1003.7 1,79.1 1809.1 2397.2 2,151.0 2109.3 1,151.0 2109.3 1,161.1 2,59.8 1089.5	6266 1069 1065 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1069 1069 1069 1069 1069 1069 1069 10		12 12 13 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12 12 12 12 12 12 12 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 521112 64 43 93 93 118 89 69 32 112244 68 82 102 51 67 34 81110 112 86 68 52 88 75 118 83 69 95 120 82 68 49
5725336 5725338 5725338 5725358 5725358 5725358 5725358 5725358 5725368 5725368 5725378 5725378 5725378 5725378 5725378 5725378 5725378 5725389 5725389 5725389 5725389 5725389 5725389 5725398 5725398 5725398 5725398 5725398 5725408 5725408 5725408 5725408 5725408 5725408 5725408 5725418	063066 092264 083065 080266 062066 101470 040364 072265 062766 093067 102069 001766 103070 070165 094366 040265 040267 111869 0602367 122969 081269	09.765 11.2968 11.3064 10.1265 09.2366 10.3168 01.0671 07.2464 01.0268	1747.3 698.0 1957.0 1739.9 1545.4 2140.8 .51.2 1734.5 1700.3 2,26.5 863.9 1062.2 152.3 1786.0 81003.7 1779.1 12397.2 1451.0 2109.6 1033.3 1481.1 2759.8	6266 1069 1069 1065 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1067 1069 10 6266 1067 1070 6266 1067 1070 6266 1067 1070 6266		12 12 13 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12 12 12 12 12 12 12 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93 118 89 69 32 112244 68 82 102 51 102 51 112 86 68 52 88 75 118 83 68 36 90 95 120 82 68 49 99 99
5725336 5725336 5725338 5725338 5725358 5725358 5725358 5725358 5725368 5725368 5725378 5725378 5725378 5725388 5725388 5725388 5725388 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725398 57254108 57254118 57254118	063066 092264 083065 080266 062066 101470 072265 062765 031769 072665 051769 072665 051769 070165	09.765 11.2968 11.3064 10.1265 09.2366 01.0671 07.2464 01.0268	1747.3 698.0 1357.0 1239.9 1545.4 2140.8 .51.2 1389.7 1,00.3 2,26.5 863.9 1062.2 .52.3 186.0 1884.8 1003.7 1,79.1 1809.1 2397.2 2,151.0 2109.3 1,151.0 2109.3 1,161.1 2,59.8 1089.5	6266 1069 10465 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1069 10 6266 1067 1069 10 6266 1067 1070 6266 1067 1070 6266 1067 1070 6266		12 12 13 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12 12 12 12 12 12 12 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93 118 89 69 32 112244 68 82 102 51 67 34 81110 112 86 68 52 88 75 118 89 90 99 120 82 68 49 99 99 125
5725336 5725338 5725338 5725358 5725358 5725358 5725358 5725358 5725358 5725368 5725378 5725378 5725378 5725378 5725388 5725388 5725388 5725388 5725389 5725389 5725389 5725389 5725389 5725389 5725381 5725381 5725381 5725381 5725381 5725381 5725381 5725381 5725381 5725381 5725381 5725381 5725418 5725418 5725418 5725418 5725418 5725418	063066 092264 083065 080266 062066 101470 040364 072265 062766 093067 102069 072665 042766 103070 070165 042765 04265 04265 04265 04265 04267 14267 04267 04267 04267 04267	09.765 11.2968 11.3064 10.1265 09.2366 10.3168 01.0671 07.2464 10.1268 01.0268 01.1269 09.1765 09.1765 09.1765 01.1367 05.2969 09.2865 07.0567 09.2867 09.2867 09.2867 09.365	1747.3 698.0 1357.0 1239.9 1545.4 2140.8 .51.2 1389.7 1,00.3 2,26.5 863.9 1062.2 .52.3 186.0 1884.8 1003.7 1,79.1 1809.1 2397.2 2,151.0 2109.3 1,151.0 2109.3 1,161.1 2,59.8 1089.5	6266 1069 1069 1065 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1067 1069 10 6266 1067 1070 6266 1067 1070 6266 1067 1070 6266 1067 1070 6266 1067 1070 6266		12 12 13 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12 12 12 12 12 12 12 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 521112 64 42 93 93 118 89 69 32 112244 68 82 102 51 67 34 81110 112 86 68 52 88 75 118 83 69 95 120 82 68 49 96 91 125
5725336 5725336 5725338 5725338 5725358 5725358 5725358 5725358 5725368 5725368 5725378 5725378 5725378 5725388 5725388 5725388 5725388 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725389 5725398 57254108 57254118 57254118	063066 092264 083065 080266 062066 101470 040364 072265 062766 093067 102069 072665 042766 103070 070165 042765 04265 04265 04265 04265 04267 14267 04267 04267 04267 04267	09.765 11.2968 11.3064 10.1265 09.2366 01.0671 07.2464 01.0268	1747.3 698.0 1357.0 1239.9 1545.4 2140.8 .51.2 1389.7 1,00.3 2,26.5 863.9 1062.2 .52.3 186.0 1884.8 1003.7 1,79.1 1809.1 2397.2 2,151.0 2109.3 1,151.0 2109.3 1,161.1 2,59.8 1089.5	6266 1069 10465 2066 6367 1069 10 2064 2066 6366 1068 1070 6266 1069 10 6266 1067 1069 10 6266 1067 1070 6266 1067 1070 6266 1067 1070 6266		12 12 13 03 03 03 03 03 03 03 03 03 5121 03 6146 12 12 12 12 12 12 12 12 12 12 12 12 12	68 51 105 90 57 68 69 44 81 52 70 52111 64 42 78 43 93 93 118 89 69 32 112244 68 82 102 51 67 34 81110 112 86 68 52 88 75 118 89 90 99 120 82 68 49 99 99 125

5725448	U7U264	041864	^47.0	1065		12		54	
5725440	081265	100565	1101.4	6266		12		67	
5725448	081568	110768	1073.7	1068		12	5608		
5725450	073164	102164	1.38.8	1065		04		54	82
5725458	111365	010766	1549.5	6266		04			
572545B		072268	2190.2	1068	1		4084	88	83
572545B	061570			1070	i	04	4004	124	00
5725468		121065		2066	-	12			
5725468		042468	1734.3	1068				66	
		042400	1/34.3				4643		85
572546b	060270			1070		12		122	
5725478		100865	697.0	6266		12		66	49
5725478		120667	1281.2	1066		12		78	45
5725478		082569	1813.6	1066		12	6192	112	83
58 759A	102364	010965		1065		12			76
58 759A	062665	073065		6165		12			34
58 759A	080566	091966		6367		12			44
58 760A		100165	1205.7	2066		10		60	35
58 760A		091366	1358.9	6367		10	4032		46
58 760A	051567		1524.9	1068		10	7004		76
		092970		10		••		72	, 0
580760A			2417.8			_	6741		
58 764A		072865	1121.9	2065		05		69	34
58 764A		04~B06	1.02.8	6367		05		84	39
58 764A	100766	121368	1941.0	1067		05	4117	109	66
58U764A	021771	042371	2381.6	10					
58 765A	061865	071765	1 < 78 . 8	2065		05		69	30
58 765A		024167	1(21.5	1067		05			101
58 765A		121668	2.14.7	1069			4313		
580765A		115070	2555.5	10		-	7073	,	
58 766A		101865	1031.8	2066		10	,,,,	72	34
58 766A		092366	1;02.2	6367					42
			1748.1	1069		10	4000		
58 766A		112368				10	4236	108	60
580766A		051071	2381.7	10					
58 767A		071765	563.8	2066		10		69	
58 767A		092966	1:71.1	6367		10		82	
58 767A		031767	1271.1	1067		10	3530	88	87
58 767A	123059	030970	2155.7	1070		10	4028	124	70
58 768A	062465	072265		2065		10			28
58 768A	U72760	091366		6367		10			46
58 768A	020468	041968		1068		10			73
58 709A		111864		1065		10			64
58 709A		073065		6165		10			32
58 772A		072265	1161.1	2065		10		60	30
58 772A		081706	1449.1	6567		10			34
58 772A	030767		1.04.3	1067			24.44		
				1070		10	3484		70
58 772A		030470	2-43.6			10	4005	124	36
58 773A		080665		5066		10			34
58 773A		100366		6367		10			71
58 773A		022768		1068		10			76
58 773A	U5197U			1070		10			
58 774A	081665	092165	1188.0	2066		10		70	35
58 774A	U81166	092766	1595.9	6367		10		82	46
58 774A	031467	053167	1510.0	1067		10	3252	91	76
58 774A	011670	032370	2271.2	1070		10	4281	124	67
58 775A	000164		842.0	1064		03			83
58 775A	070865		1.39.1	6166		03		69	27
58 775A		091366	1272.8	6367		03		105	45
58 775A		021869	1742.7	1069			4243		
58 776A		084965	517.1	2065		03	4243	69	82
						07			30
58 776A		091466	1:06.6	6367		07			39
50 776A		010667	1.29.3	1067			3266		93
58 776A		102168	1407.8	1069		07	3908		28
58 7774		101665	1613.4	2066		03			37
58 777A		092766	1214.9	6367		03	1.1.1.1	81	40
58 777A	031568	05∠868	1515.2	1068		03	3992	113	73
58 777A	041370	062270	1940.3	1070			5226		69
58 778A	072665	090365	L66.0	2066		12		69	37
58 778A		050669	1:65.9	1069			5211		
580778A	052171		1719.9	10			-		
58 779A		082565	1191.0	2066		03		68	29
58 779A	070166		1796.2	6367		03			37
58 779A	050267		1563.7	1067			4447	91	
58 779A		032670	2114.6	1070			4331		
58 780A	040265		583.6	2066		03		69	
58 780A		082266	1 173.8	6367		03		80	
	122067		1507.5	1068		03		97	
58 780A		004 -100	1307.03					,,	
58 7804	052170	1010.5	1117 6	1070		03		70	11
58 781A	091765		1043.5	2066		03		72	
58 781A	091066		1017.6	6367		03		82	
58 781A	112560		1242.0	1067			3205	85	
58 781A	025864		1718.4	1069			5126		
58 782A	082065		°56 • 1	1066		03		69	
58 702A	070760	081166	1108.6	6367		03		81	
58 782A	121666		1201.9	1067			3118	86	
58 782A	040869	002369	1758.2	1069		03	5257		
59 783A	080165	091565	651.1	2066		10		69	46
58 783A	041768		1393.5	1068		10	4322	102	

580783A	100870 122870	2068.2	10		6736	
58 784A	U72265 U82685		2066		10 69	34
58 784A	U71268 081666		3067		10 61	
58 784A	101168 122468		1069 .	11	10 4165 106	
	030571 050771		10	••	10 4105 100	
58U784A					02 69	45
58 785A	080665 092185		6266			79
58 785A	031467 060567		1067	•		
58 785A	072269 101069		1070		02 4965 117	78
58 786A	U32765 06U965		2065	11	10	
58 786A	U32267 052687	1188.4	1067		10 3550 89	
58 786A	102869 011570	1756.1	1070		10 4628 120	77
58 787A	080565 091165		2066		10	35
58 787A	080266 092166		6367		10	49
58 787A	U30168 U51668		1068		10	76
58 788A	100864 122664		1065			78
580788A	072765 090165		2065			35
580 78 8A	U71866 09U166		8367		10 81	
58U788A	U80268 1Uu768	1618.6	1069	11	10 2930 105	65
580788A	122070 030571	2185.7	10		6856	
58 789A	110264 122284		1065		10	50
58 789A	060665 071865		6265		10	40
58 730A	070764 091864		1065		10 56	
58 730A	080965 091165		2066		10 69	
58 790A	070866 082466		6387			
58 790A	U5316B 081268		1069		10 103	73
58U7 9 0A	080570 100870		10		7300	
58 791A	072065 082185	1280.5	2066		10 69	31
58 791A	U72266 082668	1485.0	8367		10 81	. 34
58 791A	0/2167 101167	1687.8	1068		10 4611 94	80
58 791A	012270 032770		1070	1111	10 3959 124	65
	U40164 U7U764		1064		05 54	
58 792A						_
58 792A	022565 032585		2065		05 64	
58 792A	060768 072066		6366		05 81	
58 792A	040768 061968	1957.8	1068		05 3811 104	72
58 792A	051170		1070		05	
58 793A	082965 073065	1157.3	2066		10 66	32
58 793A	070766 081766		6367		10 80	40
58 793A	010368 031568	16 10 . 0	1068		10 4230 100	
	071665 081365		2086		03 69	
58 797A		1255.7				
58 797A	072666 090686		6367		03 81	
58 797A	010567 040567	1543.5	1067		03 3396 86	
58 797A	080069 102169	2(54.9	1070	11	03 4738 117	
58 798A	091365 101265		6166		03	29
58 9008	U70164 08U364	658.8	1065		12 52	33
58 900b	101265 120965		6266		12 67	
58 9008	U91968 121868	1676.3	1069		12 6308 105	
580900b						70
	112770 021771	2232.3	10		6947	
58 9018	113085 012866	1620.5	6266			59
58 9016	100766 U11967	1633.5	1087		04 80	105
58 9018	121368 031989	2384.2	1069		04 5390 117	96
5809026	040165 060365	916.3	2065		12 60)
58 9028	U53168 U82768	1510.1	1008			88
5809028	030171	1014.1	10		12 3730 /	
58 903B	110665 010666		8266		12 65	60
58 9030	071867 110387					
			1068			105
58 9038	022670 052870	2138.5	1070		12 5901 116	
58 9048	111965 011066	1032.8	6266			51
5809048	U91467 011868	1467.8	1068		12 6204 86	124
580904b	011670 040270	2034.6	1070		12 4183 114	76
59 001A	051864 073064		1084		12	72
59 001A	120165 011386		2066		12	44
59 002A	062464 090964	594.1	1064			55
59 002A	111965 123185	10+1.2	0266			42
59 002A						
	072368 100188	1976.1	1069		04 3812 103	, 00
590002A	111770 012871	2434.5	10		7586	
59 003A	121465 012686	1528.7	2066			42
59 003A	013167 041367	1614	1067		04 3685 85	73
59 003A	060469 081189	2381.5	1069		04 4584 114	
59 004A	121465 011286		8266			42
59 004A	082268 102588	2634.2	1069		12 4113 10	
590004A	121470 021971	2814.6	1009			
					6860	
59 005A	112265 010366		6266			42
59 005A	051567 081867	1838.7	1087			93
59 005A	081469 103169	2334.6	1070		04 4367 117	
59 006A	112665 Ul1266	1037.7	B266		04 70	47
59 006A	081767 11c187	1537.2	1068		04 4004 80	94
59 006A	100969 121989	2005.6	1070		04 5479 117	
59 007A	071965 081865		2066			27
59 007A	081966 100466		6367			45
59 007A				4.4		
	011869 032869	2014.4	1069	11	03 4693 100	
59 0UBA	080265 090985		2066			37
59 0U8A	072060 083186	1376.6	6 3 67	8.0		41
59 008A	010669 031869	1917.9	1069	11	03 4849 108	
			1069 2065	11		39
59 008A	010669 031869 020165 030965	1000.1	2065	11	13 61	39
59 008A 59 009A 59 009A	010669 031869 020165 030965 031866 041386	1030.1	2065 6365	11	13 61 13 73	39
59 008A 59 009A	010669 031869 020165 030965	1000.1	2065	11	13 61	39

59 010A	100764 120		9+3.8	1064		04	58 58
59 010A	120365 011	366 1	272.9	6266		04	73 40
59 010A	041068 062	168 1	875.6	1068		04 3993	
59 010A	040270 061		432.1	1070			
							121 68
59 011A	071966 100		3-5-1	3067		03	78 78
59 011A	051768 080		7/4.1	1068	11	03 3527	102 82
590011A	091770 112	2570 2	235.0	10		7020	
59 012A	090364 111	364 1	3.7	1065		04	57 71
59 012A	120865 012			2066		-	
						04	72 50
59 012A	062468 091			1068		04 3786	102 82
590012A	090370 111	370 21	735.7	10		6913	
59 014A	112665 010	866		5266		04	35
						04 3940	72
59 014A	012668 040			1068			
59 015A	120765 011		344.6	6266		04	60 37
59 015A	091466 120	1766 1	5u7.0	1067		04 3570	80 84
59 015A	010969 034		0 18.5	1069		04 4534	108 77
	062471 083		639.2	10			•
590015A						• •	70 40
59 016A	011066 024		344.1	6266		10	72 49
59 016A	010367 07	2567	6J7.1	1067		10	84202
59 016A	030670 051	1870 2	4 14 . 0	1070		10 4768	122 72
59 018A	111964 021	1665 1	018.8	1065		04	58 87
			297.7	2066		04	70 52
59 018A	112365 011			-			
59 018A	102268 123	3068 2	1,2.4	1069		04 4415	
59 019A	112365 010	766		6266		04	70 45
59 019A	030967 051	1967		1067		04 3278	88 70
59 019A	032569 070		3/4.4	1069		04 4260	112 74
							44
59 020A	081465 09		1.0.9	6266		13	
59 020A	010868 03	2068 1	619.9	1068		13	80
59 020A	042170			1070			
59 021A	052164 081	1064	964.2	1064		15	48 80
	032565 044		173.2	2065		15	57 32
590021A							
590021A	040866 051		382.5	6366		15	69 35
590021A	080568 111		952.1	1069		15 4109	90104
590021A	022271 050	1771 2	5 19 . 5	10			
59 022A	101964 121			1065		15	58
				2065		15	37
59 022A	021265 031						
59 022A	022866 033			6366		15	32
59 023A	100264 120	J864 1	1 4.9	1065		02	58 66
59 023A	010666 026	2466 1	148.8	6266		02	72 48
59 023A	U9256H 121		063.0	1068		02 4367	
				-		UE 4507	100
5900234	032171 001		653.8	10		32	
59 024A	062364 086			1064		05	54 63
59 024A	052267 103	3167 1	557.4	1067		05	89 99
59 024A	082069 104		947.8	1069		05 4449	116 61
				2066			
59 025A	071465 081		1(1.2			10	
59 025A	072566 083		208.1	6366		10	78 36
59 025A	091367 121	1367 1	584.0	1068		10 4322	91 90
59 025A	U33070 060	470 2	257.5	1070		10 4744	124 65
59 0264	041264 064			1064		04	52 72
59 026A	083065 100			2065		04	68 36
59 026A	U2166U 050		266.9	1068		04 4038	97 82
59 026A	012370 040	0270 1	706.6	1070		04 4351	120 69
59 027A	071265 081		078.4	1066		10	65 30
59 027A	070466 081		342.6	6367		10	77 42
59 027A	091868 114		958+1	1069		10 4724	104 /7
590027A	051671	2	7.7.1	10			
59 028A	091164 114	c764	919.7	1065		15	56 76
59 028A	032965 04		031.1	2065		15	64 24
			2,4.4	6366		15	76 36
59 028A	040566 051	1100					
59 028A	012969 040		0(3.5	2069		15 4611	
59 030A	120965 011	1966 1	345.3	6266		04	70 41
59 030A	042667 06.	3067 1	766.0	1067		04 3650	88 64
59 030A	073169 100		347.2	1070		04 4660	102 68
59 031A	110865 12		202.1	6266		02	69 42
59 031A	072367 101			1067		02 4552	89 83
59 031A	112069 020	U270 2	141.9	1070		02 3817	117 68
59 032A	092265 102		147.5	6266			
59 032A	072968 094		854.3	1069		01	68 34
						01 3949	101 58
590032A	082670 10:		449.6	10		7383	
59 033A	102665 121		160.0	6266		02	69 49
59 033A	122667 031	1868 1	616.6	1068		02 4356	
59 033A	030970 051		237.5	1070			
59 034A	092064 114					02 4351	
59 034A				1065		02	54 56
	102565 120		167.5	6266		02	69 37
59 034A	102368 010		3-8.6	1069		02 4174	
590034A	052371	1	990.7	10			
59 035A	100865 110		142.6	2066		01	
59 035A	101868 123					01	68 26
			1:0.3	1069		01 4708	104 72
59 036A	110965 122			6266		01	44
59 036A	005467 041		495.1	1067		01 4527	80
59 036A	002469 090	269 19	944.7	1069			
59 037A	U82264 10.		9: 4.6	1065		01	69
59 037A	110465 122					02	54 64
59 037A				6266		02	69 46
	001660 092			1068		02 3819	
590037A	102670 010		5t.3.8	10		6802	
59 038A	042864 072	364		1064		02	85
						7-	03

59 038A	102965			6266		02	48
59 038A	061268	101368		1069		02	61
590038A	010871		2366.3	10		6455	
59 040A	102565	120165	993.1	6266		02	68 36
59 040A	U20766		1540.8	1068		02 4502	96 72
59 040A	050870			1070		02 4369	
59 042A	110165	121565	10"0.3	6266		10	68 45
59 042A	102469		1648.9	1070			116123
59 043A	110265		972.3	2066		02	69 45
59 043A	U30768	052368	1440.0	1068		02 3977	96 76
59 043A	040970	U61670	1801.4	1070		02 4836	124 68
59 044A	111265	123065	1047.7	6266		02	68 48
59 044A	020267	041367	1268.9	1067		02 3665	84 69
59 044A		050269	1677.9	1069		02	108 68
			912.3	6266		02	53 43
59 046A	111065						
59 046A	051167		1306.5	1067		02	68 74
59 046A	090869	111369	1757.6	1070		02	114 66
59 047A	U61564	081964	858.4	1064		02 3888	52 65
59 047A	110365	121565	1241.6	6266		02	69 42
59 047A	121768		1953.2	1069		02 4056	
590047A	062171		2518.6	10			
							40.00
59 048A		122765	1105.5	6266		02	69 42
59 048A	111566		1437.6	1067		02 4043	81 95
59 048A	050869	071669	1951.4	1069		02 4218	
59 049A	020965	031565		2065		13	36
59 049A	011866	021566	1219.4	6366		13	27
59 049A		052968	1822.3	1068		13	70
59 049A	050570	002700		10		13	
	052264	073164	854.3	1064			52 69
59 051A						01	
59 051A		022865	942.0	6165		01	57 30
59 051A	U13166	030166	126/.9	6366		01	69 68
59 051A	060669	081469	2201.9	1069	111 1	01 5570	112 69
59 052A		022565	1109.3	2065		13	60 21
59 052A		022366	1289.8	6366		13	72 34
				1068		13 3732	90 82
59 052A		101767	1673.3				90 02
59 052A	111269	012170	2183.2	1070		13 3844	117 70
59 053A	011165	022065	948.1	2065		13	57 39
59 053A		022466	1236.5	6366		13	69 31
59 053A		Ub2667	159).0	1067		13 3225	84 74
590053A							
		121769	2181.6	1070		13 4312	
59 054A		031665	1.00	2065		07	38
59 054A	U∠2566	032566	1687.8	6366		07	29
59 054A	102567	010468	1711.5	1068		07 2936	7 0 7 0
59 054 A	032070	05∠270	2224.7	1070	1 111 1	07 4379	120 62
59 056A		U31965		2065	• •••	13	58 29
59 056A		U32866		6366		13	70 85
			15.14.1				
59 056A		020467	1514.1	1067		13 3967	92 85
59 056A	041469		2047.2	1069		13 5160	
59 057A	080564		1045.3	1065		07	54 71
59 057A	020165	U3U465	1132.2	2065		07	58 32
59 057A	020466	U31466	1457.5	6366		07	70 38
59 057A	022769	050969	2136.8	1069		07 4790	108 72
59 058A		100864	1010.4	1065		07	52 70
59 058A		U24865	1127.1	2065		07	
59 058A		022366	1374.4	6366		07	76 33
59 058A		025363	2198.1	1069	1	07	106109
59 059A	070864	U92364	1162.4	1065		07	52 77
59 059A	021265	031765		2065		07	58 33
59 059A		U3U266	1498.8	6366		07	69 36
59 059A		040869	2294.0	1069	11	07 5682	
59U059A	040771	3 . 5 . 6	28(4.3	1009	**	J. 3002	203 09
59 060A		01.4.	2014.3				
		032665		2065		13	58 34
59 060A		040166	1373.5	6366		13	70 30
59 060A		121967	1845.1	1068		13 3676	90 68
59 060A		U2U 97 0	2287.3	1070		13 4031	116 77
59 062A	U11865	022365	1007.4	2065		13	56 36
59 062A		022866	1331.5	6365		13	68 32
59 062A		060368	1953.1	1068		13 3628	96 71
59 063A		022465	861.3	2065		13	56 37
59 063A		041466					
59 063A			1079.2	6366		13	68 33
		010367	1200.3	1067		13 3772	89108
59 063A		000969	1905.7	1069		13 4983	
59 064A		031065		6165		02	58 26
59 064A		U4u866		6366		02	70 31
59 064A		111467	1253.6	1068		02 4195	88 85
59 064A		030370	1821.0	1070		02 4053	
59 065A		022365	1111.5	2065		02 4033	57 41
59 065A		030266					
			1357.0	6366		02	69 28
59 065A		041367	1645.8	1067		02 3388	81 33
59 065A		102369	2314.8	1070		02 4647	
59 066A		021865	1065.7	2065		13	57 41
59 066A	020166	030466	1332.6	6365		13	69 32
59 066A		082368	1983.2	1068		13 3457	
590066A		112270	2520.1	10		6820	
							40 40
59 067A		051265	103/.4	2065		15	60 40
59 067A		051266	128.1.6	6366		15	72 37
59 067A		123066	1390.7	1067		15 3251	77 49
59 067A	U21469	042269	1951.6	1069		15	106 68
59 068A	080364	101664		1065	0.54	15	74
59 068A		050465		6165	6-54	15	28

59 068A		042866		6366	1	5	30
59 069A	U70964	092364	845.0	1065	1	5	50 75
59 069A		051565	1016.1	2065	1	5	58 39
59 069A		042866	1230.4	6366	1		69 34
59 069A		113067	1503.2	1068	1	5	88 50
59 069A	111469	012770	1937.3	1070	1	5 3686	115 74
59 071A		051165	1020.9	2065	1	5	60 30
59 071A	031766	041966	1235.1	6366	1	5	70 3
59 071A	041568	062568	1787.6	1068	1	5	94 7
59 071A	042070	062970	4271.0	1070	1		
59 072A	041465	051765	977.1	2065	i		60 33
59 072A	U33066	050666	1155.7	6366	i		69 3
59 072A		031067	1320.0	1067	ī		90 70
59 072A		061869	190 1	1069	ī		108 6
59 074A		102663	590.0	1163	ī		30 54
59 074A		U51965	992.3	2065	i a		57 30
59 074A		051366	1215.5	6366	ī		69 36
59 074A		013169	185' . 6	1069	ī		103 75
590074A	041571		2444.7	10	-		
59 075A		052465	1097.2	2065	1	5	57 30
59 075A		050666	1254.6	6366	i i		69 36
59 075A		032068	1750.5	1068	i		90 70
59 075A		044270	2264.4	1070	i		116 69
59 076A		042765	1124.6	2065	i		
59 076A		042066	137: .1	6366			57 28
59 076A		U51867	1617.3	1067	1		69
59 076A		062769	2131.2	1069	1		81 75
59 077A		050365	1022.2	_	1		
59 077A				2065	1		57 34
59 077A		042966	125(. 0	6366	1		70 31
		020367	1425.1	1067	1		90 82
59 077A		103068	1864.4	1068	1:	5 4088	98 65
590077A		021771	2470.8	10		6434	
59 078A		050665	1074.7	2065	1		57 35
59 078A		050566	1324.6	6366	1		69 35
59 078A		070367	1589.4	1067	1		61 76
59 078A		082869	2195.7	1070	. i		108 69
59 079A		051165	1055.6	2065	- <u>1</u>		57 35
59 079A		042766	1297.2	6366	1		69 29
59 079A		091068	1902.9	1069	1:		97 71
590079A		121170	2427.0	10		6884	
59 080A		051165	1072.0	6165	1		57 30
59 080A		042566	1264.8	6366	1		68 32
59 080A		090167	166-4	1067	1		84 73
59 080A		110669	222 .4	1070	1		112 63
59 081A		051865	1035.3	2065	1:		57 34
59 081A		042966	1222.1	0366	1:		68 32
59 081A	061768		188(.6	106A	15		96 74
590081A	081070		2211.3	10		7046	
59 082A	041765		1053.0	2065	1:		57 21
59 082A	032266			6366	15		69 34
59 082A	080367		1600.7	1068	1:		86 86
59 082A	100769		2126.9	1070	15		113 66
59 083A	042065		1033.7	2065	. 1	j	57 31
59 083A	031866		1250.9	6366	1:		69 33
59 083A	110867		1692.4	1068	1:	3775	89 90
59 083A	122969	030670	2226.9	1070	15	3552	114 67
59 084A	012465		1072.0	1065	19	j	55 59
59 084A	040866	051366	1389.4	6366	19	•	69 35
59 084A	120568	U24769	2059.0	1069	19	4646	102 64
590084A	060771		2614.2	10			
59 085A	032265	041765	1146.4	2065	0.5	j	57 25
59 085A	061366		1480.7	6366	0		72 44
59 085A	031367		1688.4	1067		3546	81101
59 085A	061269	081869	2116.3	1069			108 67
59 086A	041066	064066		1066	10		62
59 086A	062768	102568		1068	16		118
590086A	033071	073071	952.0	10			
59 088A	092065		1335.7	6266	01		62 17
59 088A	050368		2050.6	1068		3435	93 74
59 088A	052770			1070	01		
59 089A	092165	102365	1338.2	6266	01		62 33
59 089A	111866		1616.7	1067		3476	76 66
59 089A	030569		2220.9	1069		2403	
59 070A	100865		1000.5	6266	01		64 35
59 090A	091867		1581.1	1068		3756	86 87
59 070A	093069		2182,1	1070			
59 071A	100565		1122.4	2066			110 66
59 071A	113060		1345.7	1067	01		64 35
59 0 11A	010269		1944.5	1069	01		76 62
590071A	061471		2630.5	10	0,	- 4150	102 69
59 072A	093065	114545	1310.4	6266			
59 092A	011767		1549.6	1067	0.5		62 37
59 092A	031969		2154.3	1069		3364	78 75
59 093A	101165		1282.5	6266			104 38
59 033A	000068		1991.1	1068	01		62 35
590033A	111070		2601.0	10	01		96 65
3700734	1110/0	0113/1	EN01.0	10		6262	

59 034A	101165	111965	1291.7	6266
59 094A	121567	022968	1740.7	1068
59 034A	122969	030270	2344.1	1070
59 095A	101465	112265	1206.2	6266
59 035A	051668	072968	1901 5	1068
59 095A		0 / 2 700	1901 3	1070
	062370 100565	11u965	1155.5	6266
59 096A		041467	1443.0	1067
59 096A	020067		2043.1	1069
59 096A	051369	071469		6265
59 037A	101965	113065	1149.9	
59 097A	030668	051568	1833.4	1068
59 097A	042270	062970	2427.2	1070
59 099A	092865	110565	1221.2	6266
59 099A	071067	092667	1636.9	1068
59 099A	070769	091269	2233.9	1070
59 100A	100165	110865		6266
59 100A	032967	062367	1331.5	1067
59 100A	052669	082269	1928.6	1069
59 101A	092765	102865	1188.6	6266
59 101A	041367	070367	1604 9	1067
59 101A	102469	010670	2358.2	1070
59 102A	101965	112465	1244.4	6266
59 102A	022368	050968	1817 4	1068
59 102A	031970	052270	2413,3	1070
59 103A	081265	091565	1055.3	6266
59 103A	100667	010268	1558.7	1068
59 103A	021170	042070	2073 4	1070
59 104A	071263	061564	749.0	1164
59 104A	122965	011966	1353.7	6266
59 104A		093068	1495 2	1069
590104A	070868 020471	040571	1948.2	10
59 105A	010866	020866	1505.7	6266
59 105A		U31667	1681.9	1067
59 105A	122766	07469	2279.2	1069
	052069	011966	1255.8	6266
59 106A 59 106A	122965 020368	041568	1786.4	1068
59 106A	032470	052770	2275.2	1070
59 108A	050564	072764	985.5	1064
59 108A	122365	012866	1416.7	6266
59 108A	012368	040268	1968.4	1068
59 108A	060370	0.40200	2550 9	1070
59 109A	U82664	103064	1079 3	1065
59 109A	010566	020466	1461.5	6266
59 109A	070868	091168	2021.8	1069
590109A	110270	011871	2673 2	10
59 110A	122365	012866	-0.0	2066
59 110A	052267	673167	1753.0	1067
59 110A	010870	031370	2343.9	1070
59 112A	060763	011364	580.1	1164
59 112A	030565	040265	830.9	2065
59 112A	060166	072066	1176.0	6366
59 112A	082668	110768	1650 5	1069
590112A	011871	032271	2307-9	10
59 115A	122265	020366	1264.9	6266
59 115A	031367	053167	1549.1	1067
59 115A	061869	092669	1894 4	1069
59 116A	022765	031665	1054.2	2065
59 116A	061566	002466	1459.9	6366
59 116A	010567	032267	1586.9	1067
59 116A	013169	044369	1977.5	1069
59 118A	011366	021866		6266
59 118A	110466	012667		1067
59 119A	010366	020366	1427.2	6266
59 119A	050167	071867	1767.0	1067
59 119A	110569	012170	2363.3	1070
59 121A	U11166	021766		6266
59 121A	101266	011167		1067
59 122A	031765	041765	1073.6	2065
59 122A	062066	081566	1480.4	6366
59 122A	112166	022467	1574.2	1067
59 122A	012169	032869	2029.2	1069
590122A	062971		2726.1	10
59 123A	031565	042065	996.9	2065
59 123A	053166	072066	1309.9	6366
59 123A	101266	012367	1395.2	1067
59 123A	110768	021469	1786.0	1069
590123A	051171		2397.2	10
59 125A	100864	120464	1094.8	1065
59 125A	021165	031565		2065
59 125A	020266	032466	1419.9	6366
59 125A	083068	111268	2253.5	1069
59 126A	022765	031665	967.7	2065
59 126A	061566	072866	1310.6	6366
59 126A	052367	082367	1571.8	1067
59 126A	072369	092969	2008.7	1069
59 127A	011265	022365	1121.3	2065
59 127A	012666	02.056	1349.9	6366

01		64 39
01	4079	89 76
01	3629	113 59 64 39
01	3737	93 73
01	3994	119
01	3303	62 35 78 64
01	4354	105 62
01	3560	64 42
01	4227	67
01		62 39 84 77
01	4867 4510	84 77 108
01		39
01	3466	86 87
01		62 32
01	3435 4610	81 81
01	4610	112 74 62 36
01	3388	90 75
01 13	4336	115 63 60 34
13	3647	86 88
13	4663	114 69
04		48338 65 22
04		96 83
•	6683	
04	3096	31 71
04	••••	65
15 15	4320	65 22 90 70
15	4314	115 63
07 07		45 83
07	3708	64 36 89 69
07		117
10		48 66 65 30
10	3638	94 64
	3638 7122	
67 07		64 36 81 70
07	3808	113 70
10 10		33221 55 27
10		69 50
10	4742	96 73
13	6403	53 43
13	3422	80 78
13		
		106 99
05 05		54 17
05 05	3590	54 17
05 05 05	3590 5176	54 17 69 73 78 75 102 83
05 05 05 05		54 17 69 73 78 70 102 83 36 83
05 05 05 05 05 07	5176 3508	54 17 69 73 78 75 102 83 36 83 67 32
05 05 05 05	5176	54 17 69 71 78 75 102 83 36 83 67 32 82 74 109 77
05 05 05 05 07 07 07	5176 3508 3713 4029	54 17 69 *1 78 75 102 83 36 83 67 32 82 74 109 77 37
05 05 05 05 07 07	5176 3508	54 17 69 71 78 75 102 83 36 83 67 32 82 74 109 77
05 05 05 05 07 07 07 07 07 05	5176 3508 3713 4029	54 17 69 *1 78 75 102 83 36 83 67 32 82 74 109 77 37 90 57 31 70 56
05 05 05 05 07 07 07 07 07 05 05	5176 3508 3713 4029 3358	54 17 69 %1 78 79 102 83 36 83 67 32 82 74 109 77 37 90 57 31 70 56 86 95
05 05 05 07 07 07 07 07 05 05	5176 3508 3713 4029	54 17 69 71 78 79 102 83 36 83 67 32 82 74 109 77 37 90 57 31 70 56 86 95 102 66
05 05 05 05 07 07 07 07 07 05 05 05	5176 3508 3713 4029 3358	54 17 69 91 78 79 102 83 67 32 82 74 109 77 90 57 31 70 56 66 95 102 66
05 05 05 07 07 07 07 07 05 05	5176 3508 3713 4029 3358 4969	54 17 69 71 78 72 102 83 36 83 67 32 82 74 109 73 57 31 70 56 86 95 102 66 55 35 68 51 85102
05 05 05 05 07 07 07 07 07 05 05 05 05 05 05 05 05 05 05 05 05 05	5176 3508 3713 4029 3358 4969	54 17 69 77 78 78 102 83 36 67 32 82 74 109 77 37 90 57 31 70 56 86 95 102 66
05 05 05 05 07 07 07 07 05 05 05 05 05	5176 3508 3713 4029 3358 4969	54 17 69 71 78 72 102 83 36 67 32 82 74 109 77 90 57 31 70 56 86 95 102 66 55 35 68 51 85102 98 99
05 05 05 05 07 07 07 07 07 05 05 05 05 05 05 05 05 05 05 05 05 05	5176 3508 3713 4029 3358 4969	54 17 69 71 78 72 102 83 36 67 32 82 74 109 73 70 56 86 95 102 66 55 35 68 51 85102
05 05 05 07 07 07 07 07 05 05 05 05 05 05 13 13	5176 3508 3713 4029 3358 4969 4337 5234	54 17 69 73 102 83 36 67 32 82 74 109 77 109 77 37 97 57 31 70 56 86 51 85102 98 99 49 57 54 32 66 50
05 05 05 07 07 07 07 07 05 05 05 05 05 05 13 13	5176 3508 3713 4029 3358 4969	54 17 69 71 78 72 102 83 36 67 32 82 74 109 77 97 57 31 70 56 86 95 102 66 55 35 68 51 85102 98 99 49 57 54 32 66 50 94 74
05 05 05 07 07 07 07 07 05 05 05 05 05 05 05 05 05 05 05 05 05	5176 3508 3713 4029 3358 4969 4337 5234	54 17 69 73 102 83 36 67 32 82 74 109 77 109 77 37 97 57 31 70 56 86 51 85102 98 99 49 57 54 32 66 50
05 05 05 05 07 07 07 07 05 05 05 05 05 05 05 05 05 05 05 05 05	5176 3508 3713 4029 3358 4969 4337 5234	54 17 69 71 78 72 102 83 36 67 32 82 74 109 77 97 57 31 70 56 86 95 102 66 55 35 68 51 85102 98 99 49 57 54 32 66 50 94 74 57 58 74 58 75 58 75
05 05 05 05 07 07 07 07 05 05 05 05 05 05 05 05 05 05 05 05 05	5176 3508 3713 4029 3358 4969 4337 5234	54 17 69 71 78 78 102 83 36 67 32 82 74 109 75 57 31 70 56 86 95 102 66 55 35 68 51 85 102 98 99 49 57 54 17 69 47 44 17 69 43 106 67
05 05 05 05 07 07 07 07 05 05 05 05 05 05 05 05 05 05 05 05 05	5176 3508 3713 4029 3358 4969 4337 5234	54 17 69 71 78 72 102 83 36 67 32 82 74 109 77 97 57 31 70 56 86 95 102 66 55 35 68 51 85102 98 99 49 57 54 32 66 50 94 74 57 58 74 58 75 58 75

59 127A		061967	1636.4	1067					3137	80 81
59 127A	082869	110369	2201 6	1070	111	1		05	5365	106 67
59 128A	0.31065	042065	949.2	2065				05		54 40
59 128A		072566	1381.8	6366				05	4984	69 35
									4704	
59 128A		110367	1637.0	1067				05		82 87
59 128A	095564	120169	2034.8	1069	1			05	5381	108 70
59 129A	072764	092564	834.3	1065				13		46 59
59 129A		022466	1016.3	6265				13		62 41
59 129A		013169	1997.2	1069				13	4306	96 72
590129A	112470	020871	2423.7	10					7076	
59 130A	121865	014766	1456.5	6266				13		61 40
				1069						
59 130A		03-869	2222.					13	5039	110 66
590130A		041571	2749.3	10					6708	
59 131A	012865	030165	1266.8	6165				13		52 32
59 131A		U32266	1562.8	6365				13		64 38
59 131A		083068	2224.8							
				1068				13	3862	92 83
59 132A		040965	1096.2	2065				05		54 16
59 132A	000166	072266	1462.2	6366				05		67 52
59 132A		051167	1663.1	1067				05	4292	77 83
59 132A		061969	2096 - 2	1069				05	6169	101 76
59 133A	022365	032265	918.8	2065				05		53 27
59 133A	060166	072066	1297.3	6366				05		68 50
59 133A		122067	1576.5	1068					4776	77108
		021870								
59 133A			1985.1	1070	1			05	4276	102 75
59 134A	U3I)465	040765		2065				05		33
59 134A	002266	U60266		6366				05		41
59 134A		061268		1068				05	3017	75
			0.00						3017	
59 135A		093164	838.2	1065				05		46 57
59 135A	031065	041365	د. 1004 م	≥065				05		53 33
59 135A	053160	072266	1375.	6366				05		66 52
59 135A		090968	1823.?	1068						
								V3	4458	91 79
590135A	120770	021471	2420.B	10					6971	
59 136A	100564	121164	976.4	1065				03		48 67
59 136A		U33065	1084.5	2065				03		52 26
59 136A		072066	1536-5	6366				03		67 45
59 136A	091068	111968	2024.1	1069				03	5623	93 81
590136A	011571	031971	2556.6	10					6351	
59 137A		040165	1117.5	2065				05		54 15
59 137A		072966	1450.2	6366				05		67 46
59 137A	102267	011868	1793.1	1067				05	5954	82 88
59 137A	022070	043070	2246.2	1070				05	4033	112 38
59 138A		032665		2065				13		52 35
		_	1440 7							
59 138A	030466		1489.7	6366				13		64 32
59 138A	021667	042867	1763. →	1067				13	3850	76 71
59 138A		090369	2427.1	1069				13		103 69
59 140A		030965	1047.7	2065				13		
	020265									50 36
59 140A	022366	032966	1239.8	6366				13		62 34
59 140A	012467	032867	1438.	1067				13	3124	73 63
59 140A		124969	2181.	1070						
				_				13	5348	106 68
59 141A	012265	U22765	1078.4	2065				07		50 36
59 141A	030260	040166	1375.6	6366				07		64 31
59 141A	003167	120167	1772.	1067					4137	81 62
59 141A		U31970	2367.							
				1070	111	1			4375	
59 143A	011965	022465	1115.4	2065				07		61 36
59 143A	020366	030766	1483. }	6366				07		73 32
59 143A		031069	2150.7	1069	1			07		
	012271			10	•			0,		96 74
590143A			2702.3						6764	
59 144A	011865		1066.0	2065				07		49 40
59 144A	011760	021466	1334.2	6366				07		61 28
59 144A	120966		1593.4	1067					2955	72 76
59 144A		U7u169	2172.1	1069		1	-			
					; 111	1		07	4866	100 68
59 145A		030965	1247.2	2065				07		49 41
59 145A		044506	1516.	6366				07		62 29
59 145A	120767	021968	1959.4	1068				07	3073	72 74
59 145A	013070		2547.5	1070	111	1				109 67
59 146A	123064		1123.		111	•			4072	
				2065				03		48 49
59 146A	011166		1455.0	6366				03		41
59 146A	U32769	U61869	2267.7	1069	1			03	4501	83
59 147A	020565	031665		2065				07		49 39
59 147A		032266	1303							
			4.14.34.	6366				07		61 30
59 147A	011967	032767	1540.3	1067				07	3332	84 67
59 147A		032767		1067						84 67 114109
	011967 072569	032767 101369	1540.3	1070				07		114109
59 147A 59 148A	011967 072569 020465	032767 101369 030865	1540.3	107 ₀ 6165				07 07		114109 32
59 147A 59 148A 59 148A	011967 072569 020465 031666	032767 101369 030865 041966	1540.3	1070 6165 6366				07 07 07	5316	114109 32 34
59 147A 59 148A 59 148A 59 148A	011967 072569 020465 031666 120166	032767 101369 030865 041966 022767	1540.3 2127.2	1070 6165 6366 1067				07 07 07		114109 32
59 147A 59 148A 59 148A 59 148A 59 1498	011967 072569 020465 031666 120166 103164	032767 101369 030865 041966 022767 012865	1540.3	1070 6165 6366				07 07 07	5316	114109 32 34
59 147A 59 148A 59 148A 59 148A	011967 072569 020465 031666 120166 103164	032767 101369 030865 041966 022767 012865	1540.3 2127.2 691.5	1070 6165 6366 1067 1065				07 07 07 07 07	5316	114109 32 34 89 52 90
59 147A 59 148A 59 148A 59 148A 59 1498 59 1498	011967 072569 020465 031666 120166 103164 110165	032767 101369 030865 041966 022767 012865 122865	1540.3 2127.2 691.5 936.	1070 6165 6366 1067 1065 6266				07 07 07 07 02 02	5316	114109 32 34 89 52 90 66 59
59 147A 59 148A 59 148A 59 148A 59 1498 59 1498 59 1498	011967 072569 020465 031666 120166 103164 110165 090866	032767 101369 030865 041966 022767 012865 122865 120866	1540.3 2127.2 691.5 936.7 1164.2	1070 6165 6366 1067 1065 6266 1067				07 07 07 07 02 02	5316 3136	114109 32 34 89 52 90 66 59 76 91
59 147A 59 148A 59 148A 59 148A 59 1498 59 1498 59 1498	011967 072569 020465 031666 120166 103164 110165 090866 011469	032767 101369 030865 041966 022767 012865 122865 120866 041169	691.5 936.7 1164.2	1070 6165 6366 1067 1065 6266 1067 1069				07 07 07 07 02 02	5316 3136	114109 32 34 89 52 90 66 59
59 147A 59 148A 59 148A 59 148A 59 1498 59 1498 59 1498 59 1498	011967 072569 020465 031666 120166 103164 110165 090866	032767 101369 030865 041966 022767 012865 122865 120866 041169	1540.3 2127.2 691.5 936.7 1164.2	1070 6165 6366 1067 1065 6266 1067				07 07 07 07 02 02	5316 3136	114109 32 34 89 52 90 66 59 76 91
59 147A 59 148A 59 148A 59 148A 59 1498 59 1498 59 1498	011967 072569 020465 031666 120166 103164 110165 090866 011469	032767 101369 030865 041966 022767 012865 122865 120866 041169 042871	691.5 936.7 1164.2	1070 6165 6366 1067 1065 6266 1067 1069				07 07 07 07 02 02 02 02	5316 3136	114109 32 34 89 52 90 66 59 76 91 104 87
59 147A 59 148A 59 148A 59 148A 59 149B 59 149B 59 149B 59 149B 59 151B	011967 072569 020465 031666 120166 103164 110165 090866 011469 012971 021065	032767 101369 030865 041966 022767 012865 122865 120806 041169 042871 031665	691.5 936.7 1164.2 1736.8 2308.1	1070 6165 6366 1067 1005 6266 1067 1069 10 2065				07 07 07 07 02 02 02 02	5316 3136	114109 32 34 89 52 90 66 59 76 91 104 87 55 34
59 147A 59 148A 59 148A 59 149B 59 149B 59 149B 59 149B 59 149B 59 151B 59 151B	011967 072569 020465 031666 120166 103164 110165 090866 011469 0112971 021065 012656	032767 101369 030865 041966 022767 012865 122865 122866 041166 0421871 031665 031466	691.5 936.7 1164.2 1736.8 2308.1	1070 6165 6366 1067 1005 6266 1067 1069 10 2065 6366				07 07 07 07 02 02 02 02 02	5316 3136	114109 32 34 89 52 90 66 59 76 91 104 87 55 34 66 45
59 147A 59 148A 59 148A 59 149B 59 149B 59 149B 59 149B 59 151B 59 151B 59 151B	011967 072569 020465 031666 12016b 103164 110165 090866 011469 012971 021665 012660	032767 101369 030865 04196 022767 012865 122865 122866 041169 04287 031665 031466	691.5 936.7 1164.2 1736.8 2308.1	1070 6165 6366 1067 1005 6266 1067 1069 10 2065 6366 1067				07 07 07 07 02 02 02 02 02 07 07	5316 3136 5524	114109 32 34 89 52 90 66 59 76 91 104 87 55 34 66 45 80102
59 147A 59 148A 59 148A 59 149B 59 149B 59 149B 59 149B 59 149B 59 151B 59 151B	011967 072569 020465 031666 120166 103164 110165 090866 011469 0112971 021065 012656	032767 101369 030865 04196 022767 012865 122865 122866 041169 04287 031665 031466	691.5 936.7 1164.2 1736.8 2308.1	1070 6165 6366 1067 1005 6266 1067 1069 10 2065 6366	1			07 07 07 07 02 02 02 02 02 07 07	5316 3136 5524	114109 32 34 89 52 90 66 59 76 91 104 87 55 34 66 45 80102
59 147A 59 148A 59 149B 59 149B 59 149B 59 149B 59 149B 59 151B 59 151B 59 151B 59 151B	011967 072569 020465 031666 120166 103164 110165 090866 011469 012971 021065 012667 050269	032767 101369 030865 041966 022767 012865 122866 041169 042871 031665 031466 061667 080969	691.5 936.7 1164.2 1736.8 2308.1	1070 6165 6366 1067 1005 6266 1067 1069 10 2065 6366 1067 1069	1			07 07 07 07 02 02 02 02 07 07 07	5316 3136 5524	114109 32 34 89 52 90 66 59 76 91 104 87 55 34 66 45 80102 106 98
59 147A 59 148A 59 148B 59 149B 59 149B 59 149B 59 149B 59 151B 59 151B 59 151B 59 151B 59 152B	011967 072569 020465 031666 120166 110165 090866 011469 012971 021065 012666 030669 020165	032767 101369 030865 041966 022767 012865 122865 122866 041169 042871 031665 031466 061667 080969 031765	691.5 936.2 1164.2 1756.8 2308.1 1508.2 1759.2 2325.1	1070 6165 6366 1067 1067 1069 10 2065 6366 1067 1069 2065	1			07 07 07 07 02 02 02 02 07 07 07 07	5316 3136 5524	114109 32 34 89 52 90 66 59 76 91 104 87 55 34 66 45 80102 106 98 54 45
59 147A 59 148A 59 148B 59 149B 59 149B 59 149B 59 151B 59 151B 59 151B 59 151B 59 152B	011967 072569 020465 031666 120166 113164 110165 090866 011469 012971 012971 012666 012666 012666 012666 012666 012666	032767 101369 030865 041966 022767 012865 122866 041169 042871 031665 031466 061667 080969 031765 041266	691.5 936.2 1750.8 2308.1 1508.2 1759.2 2325.1	1070 6165 6366 1067 1005 6266 1067 1069 10 2065 6366 1069 2065 6366	1			07 07 07 07 02 02 02 02 07 07 07 07	5316 3136 5524 5861	114109 32 34 89 52 90 66 59 76 91 104 87 55 34 66 45 80102 106 98 54 45 66 50
59 147A 59 148A 59 148B 59 149B 59 149B 59 149B 59 149B 59 151B 59 151B 59 151B 59 151B 59 152B	011967 072569 020465 031666 120166 110165 090866 011469 012971 021065 012666 030669 020165	032767 101369 030865 041966 022767 012865 122866 041169 042871 031665 031466 061667 080969 031765 041266	691.5 936.2 1164.2 1756.8 2308.1 1508.2 1759.2 2325.1	1070 6165 6366 1067 1067 1069 10 2065 6366 1067 1069 2065	1			07 07 07 07 02 02 02 02 07 07 07 07	5316 3136 5524	114109 32 34 89 52 90 66 59 76 91 104 87 55 34 66 45 80102 106 98 54 45

```
590152H
             072870 101470
                                       2579.3
                                                                                                         8500
59 1538
59 1538
59 1538
                                         974.2 2065
             U32965 05U365
                                                                                                                   56 36
                                       1258.6
1443.
2253.
             032366 050666
                                                   6366
                                                                                                     10
                                                                                                                   68 44
                                                    1067
             122966 080867
                                                                                                     10
                                                                                                                   79221
                                                                                                     10 5251 114 66
01 61 47
01 5620 82102
    1538
1558
             121569 031370
                                                   1070
                                         976.5
             092765 111265
070367 101367
                                                   6266
    155B
                                        1356.4
                                                   1068
                                                                                                     01 5157 108 81
05 53 48
05 55 37
    1558
1578
             080469 102469
                                       1969.2
                                                    1070
59
                                                    1065
             030165 040665
                                         847.8
                                                   2065
                                                                                                    05 65 65
05 5700 89 72
05 115
05 54 43
             060766 081166
011768 043068
                                       1260.5
1613.0
                                                   6366
59
    1578
    1578
59
    1578
             041670
                                                    1070
59 1586
             022365 090565
                                         956.1
                                                   2065
    1588
             060166 072666
                                       1401.6
                                                                                                     05
                                                   6366
59 1588
             000667 100367
                                       1700.P
                                                    1067
                                                                                                     05
            110369 020270
482365 101265
031368 062068
                                                                                                     05 5250 109 92
59 158b
                                       2200.0
                                                    1070
                                                                                                     12
59 1598
                                                    6266
                                                    1068
                                                                                                     12 5409
                                       2263.2
679.3
1121.9
5901598
             062970 091870
                                                    10
             081763 011764
                                                    1164
                                                                                                     01
                                                                                                                   34153
59 160b
59 160b
             92265 110965
113067 030668
020370 042170
                                                                                                     01
                                                                                                                  58 48
                                       1679.[
                                                                                                     01 4788
59 160B
                                                    1068
59 1608
                                                    1070
                                                                                                     01 5281 112 77
             121765 021466
040467 083067
                                                    6266
                                                                                                     15
15
                                                                                                                  61 69
79147
    1618
                                        1204.3
                                       1569.6
2132.1
1021.1
1279.7
59 1618
                                                    1067
             071569 102169
121564 022865
011366 022566
                                                                                                                  04 98
                                                    1070
                                                                                                     15 5388 104
    1618
                                                                                                     13
    1628
                                                   1065
                                                    6366
    1628
59
             110468 011769
070765 082065
080266 021767
031769 061369
                                                                                                     13 4447 96 74
12 57 43
12 69120
12 5541 101 87
                                       2072.5
1005.2
1318.0
                                                    1069
59 1638
                                                    6266
                                                    1067
59 1638
59 1648
                                       1885.3
                                                                                                   12 5-
12 74 97
12 5431 104 91
12 5431 54 49
70101
                                                    1067
             082565 101265
022867 060567
091669 121669
                                                    1066
59 164B
                                       1163.6
                                                    1067
59 1648
                                        1742.0
59 1658
59 1658
59 1658
             061065 072865
112866 030767
                                                    2065
                                         605.8
                                                    1067
             081869 112869
                                       1053.6
+END
             PLACE TEG DATA BEFORE THIS CARD
/* PL/
//TPR.TU22
//TPR.TPR1N
T/P TU13
T/P TU14
T/P TU22
                       DU DISP>COLD+KFEPJ+VOL>SER>+F5+UNIT>T+F5
DD +,SPACE>CTRK+(1+1)]
                                                                                                              T22
                    12000802080
                   1200080Z080
1200080Z080
                    12001202120
              PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

6.4.3 IRAN COPY ACCEPTABLE AIRCRAFT

```
//C9897J JUH
//C9897 EXEC
//CHG. TU12
                                                                                   CT12
                                                                                    112
                                                                                            3
//CHG. TU22
                                                                                   CT22
11
                                                                                    T22
//CHG. INPUT
00400
01040
                                                                                      C98970
01050
                                                                                      C98970
02000
                                                                                       C98970
                                                                                       C98970
02020
                                                                                       C98970
02030
                                                                                      C98970
U2100
02110
        INPUT-OUTPUT SECTION. FILE-CONTHOL.
                                                                                       C98970
                                                                                      C98970
            SELECT INFILE
                                                                                      C98970
                                               ASSIGN TO UT-S-TU12
            RESERV. I ALTERNATE AREA.

SELLCI GUTTILE

RESERVF I ALTERNATE AREA.

SELECI ACCEPT-FILE

PESERV. I ALTERNATE AREA.
02130
                                                                                       C98970
                                               ASSIGN TO UT-S-TUZZ
U2140
                                                                                      C98970
                                                                                      C98970
02160
                                               ASSIGN TO DA-S-DT01
                                                                                       C98970
02170
                                                                                       C98970
10000
       DATA DIVISION.
10010
        FILE SECTION.
                                                                                       C98970
            INF ILE
        Fυ
                                                                                      C98970
            RECORDING "ODE IS F
BLOCK CUNTAINS 30 RECORDS
10030
10040
                                                                                       C98970
10050
            RECOPU CONTAINS 80
                                              CHARACTERS
                                                                                      C98970
```

```
10060
                LABEL RECOIDS ARE OMITTED DATA RECORPS ARE INREC. INREC. SINC.
10070
                                                                                                          C98970
10080
          01
                                                                                                          C98970
                02 FILLER
10090
                                                        PICTURE MCAOJ.
                                                                                                          C98970
                OUTFILE
RECURUING MODE IS F
BLOCK CONTAINS 30 HECORDS
          FU
                                                                                                          C98970
10110
                                                                                                          C98970
10120
                                                                                                          C98970
                RECORD (ONTAINS BO
LAPLL HECORDS ARE OMITTED
DATA RECORDS ARE OUTREC.
10130
                                                         CHARACTERS
10140
                                                                                                          C98970
              DATA RECORDS ARE OUTREC.
OUTREC SYNC.
02 FILLER PICTURE XE80:
ACCLPI-FILE.
RECORDING MODE IS F
BLOUK CUNTLINS 20 RECORDS
RECORD CONTAINS 80 CHARACTERS
LABEL HECORDS ARE STANDARD
DATA RELORUS ARE ACCEPT-REC.
ACCLPI-REC SYNC.
02 ACCLPI-DATA PICTURE XE80
03 DA/A-I PICTURE 999.
DAIAS PICTURE XE77
                                                                                                          C98970
10160
                                                                                                          C98970
10170
                                                       PICTURE XEBO 3.
                                                                                                          C98970
11400
11410
          FD
                                                                                                          C98970
                                                                                                          C98970
11430
                                                                                                          C98970
11440
                                                                                                          C98970
11450
          01
11460
                                                                                                          C98970
11470
                                                       PICTURE XE803.
11480
                                                                                                          C98970
          02 FILLER REUFINES ACCEPT-DATA,
03 DA/A-I
03 FI'LER PICTUR
02 FILLEP REDEFINES ACCEPT-DATA,
03 DATA-2 PICTUR
03 FILLE PICTUR
WORKING-STORAGE SECTION.
11490
                                                                                                          C98970
11500
                                                       PICTURE XE771.
11510
                                                                                                          C98970
                                                       PICTURE XE83.
11520
                                                                                                          C98970
                                                                                                          C98970
11530
                                                        PICTURE XE723.
 30000
                                                                                                          C98970
          01 DATA-IN SYNC.
02 SLH-NC
02 FILLER
 30100
                                                                                                          C98970
30110
                                                       PICTURE XEB 3
                                                                                                          C98970
                                                        PICTURE XE 72 ].
50120
                                                                                                          C98970
          10
               KNT SYNC COMPUTATIONAL NUMBER-RECORDS-PASS SYNC
                                                       PICTURE 5999.
PICTURE 9(6) VALUE ZERO.
PICTURE XC803 VALUE
30130
50140
                                                                                                          C98970
 35000
          01
                NINE STIC
                                                                                                          C98970
                              35010
35020 -
                : 9049494949494949499999999999
                                                                                                          C98970
                TAPLE-ACCEPI-A-C SYNC.
02 ACCEPT-A-C OCCURS 250 TIMES DEPENDING ON NO-ACCEPT-A-C
          10
40000
                                                                                                          C98970
4 DUIO
                                                                                                          C98970
                                                        PICTURE XEBJ.
40020
                                                                                                          C98970
40030
          10
               NO-ACLEPT-A-C SYNC
TEMP-ACLEP:-A-C SYNC
INC SYNC COMPUTATIONAL
                                                        PICTURE 999
                                                                                                          C98970
40040
          01
                                                        PICTURE XEAD.
                                                                                                          C98970
                                                        PICTURE 5999 VALUE (1.
                                                                                                          C98970
          PROCEDURE DIVISION.
50000
                                                                                                          C98970
          BEGIN.
50010
                                                                                                          C98970
                OPEN INPUT INFILE, ACCEPT-FILE. OPEN GUIPUT OUTFILE.
50020
50030
                                                                                                          C98970
50040
                PERFORM READ-ACCEPT-DATA THRU END-R-A-D.
                                                                                                          C98970
50090
          REAU-FILES.
                                                                                                           C98970
                READ INFILE AT END GO TO BLOCK-CHECK.
50100
                                                                                                          C98970
50110
                MOVE IMMEC TO DATA-IN.
                                                                                                          C98970
          TESTI.

IF SER-NO IS LESS THAN TEMP-ACCEPT-A-C GO TO READ-FILES.

IF SER-NO IS EQUAL TO TEMP-ACCEPT-A-C GO TO WRITE-DATA.
50120
                                                                                                          C98970
                                                                                                          C98970
50122
                                                                                                          C98970
                ADD 1 TO INC.

IF INC IS GHEATER THAN NO-ACCEPT-A-C GO TO BLOCK-CHECK.
50123
                                                                                                          C98970
50124
                                                                                                          C98970
                MOVE ACCEPT-A-C CINCT TO TEMP-ACCEPT-A-C.
50125
                                                                                                          C98970
50126
                                                                                                          C 98970
          WHITE-DATA.
50200
               WRITE OUTHER FROM DATA-IN.
ADD I TO NUMBER-RECORDS-PASS.
GO 10 NEAD-FILES.
50210
                                                                                                          C98970
50215
                                                                                                          C98970
50220
          BLOCK-CHECK.
50222
                                                                                                          COROTO
50224
                COMPUTE KIST > NUMBER-RECORDS-PASS - CENUMBER-RECORDS-PASS /
                                                                                                          C98970
50226
                IF ANT IS EQUAL TO ZERO OD TO CLOSE-FILES.
                                                                                                          C98970
50228
                                                                                                          C98970
         LOOPI.

#HITE OUTLEC FROM NINE.

ADD I TO PART.

IF KNY IS LESS THAN 30 GO TO LOOPI.

CLOSE-FILLS.

CLOSE THET F HITH LOCK. ACCEPT-FILE
50230
50232
                                                                                                          C98970
50234
                                                                                                          C98970
50236
                                                                                                          C98970
50240
                                                                                                          C98970
               CLOSE INFILE WITH LOCK, ACCEPT-FILE WITH LOCK. CLOSE OUTFILE WITH LOCK.
50450
50260
                                                                                                          C98970
               DISPLAY NUMBER-RECORDS-PASS UPON CONSOLE.
DISPLAY 'EJJ 9897 : UPON CONSOLE.
50270
50280
                                                                                                          C98970
50290
                                                                                                          C98970
         READ-ACCEPT-DATA
70000
               MOVE ZERO TO KNI.
70010
                                                                                                          C98970
70020
                                                                                                          C98970
70030
                                                                                                          C98970
         RAU-1.
70040
                                                                                                          C98970
               AUD I TU KNT.
REAU ACCEPT-FILE AT END GO TO END-R-A-D.
70050
70060
                                                                                                          C98970
               MOVE ACCEPT-A-C [1] TO TEMP-ACCEPT-A-C.
                                                                                                         C98970
TOURD
70090
                                                                                                          C98970
70100
         ENU-R-A-D. EXIT.
                                                                                                          C98970
```

```
/* PLACE COBUL SOURCE BEFORE THIS CARD
//LHG.[FGIN DU ..SPACE>(CYL.(1.1])
IFG DIU1 11 0207080
57000231
57000231
57000232
57000235
57000237
57000243
 57000244
57002455
57002456
57002458
57002459
57002463
57002470
 57002473
57002476
57002477
57002482
57002483
57002485
57002485
57002486
57002490
57002491
57002493
57002494
57002503
57002504
57002505
57002508
57002508
57002515
57002517
57002520
57002524
57002527
57002528
57002532
57002533
57002537
57002538
57002540
57002543
57002545
57002546
58000760
58000766
58000767
58000772
58000773
58000777
58000778
58000780
58000781
58000783
58000785
58000786
58000788
58000792
58000797
58000900
58000901
58000903
58000904
59000002
59000003
59000004
59000005
59000006
59000007
59000010
5900012
5900016
5900018
5900019
5900024
59000025
59000026
59000027
59000028
```

1440 CDS

```
59000031
59000033
59000035
59000043
59000044
59000046
59000048
59000051
59000052
59000053
59000054
59000056
59000057
59000058
59000059
59000060
59000063
59000064
59000005
59000067
 59000009
59000072
59000074
59000076
59000078
59000080
59000082
59000084
59000085
59000088
 59000090
59000092
59000094
59000095
59000096
59000099
59000103
59000104
59000105
59000108
59000109
59000110
59000115
59000116
59000119
59000126
59000127
59000130
59000132
59000133
59000137
59000139
59000140
59000141
59000143
59000144
59000145
59000146
59000147
59000149
59000151
59000152
59000153
59000157
59000164
*END
#ENU

/* PLACE TFG D'TA BEFORE THIS CARD

//TPR.TU12 DU D15>>(0LD:KEEP);VOL>SER>+F1:UNIT>T+F1

//TPR.TU22 DU D15>F1(ULD:KEEP);VOL>SER>+F5:UNIT>T+F5

//TPR.TPR:N DD ;SPACE>[THK;[1:1]]

T/P TU22 10500802080
                                                                                                                                                    T12
```

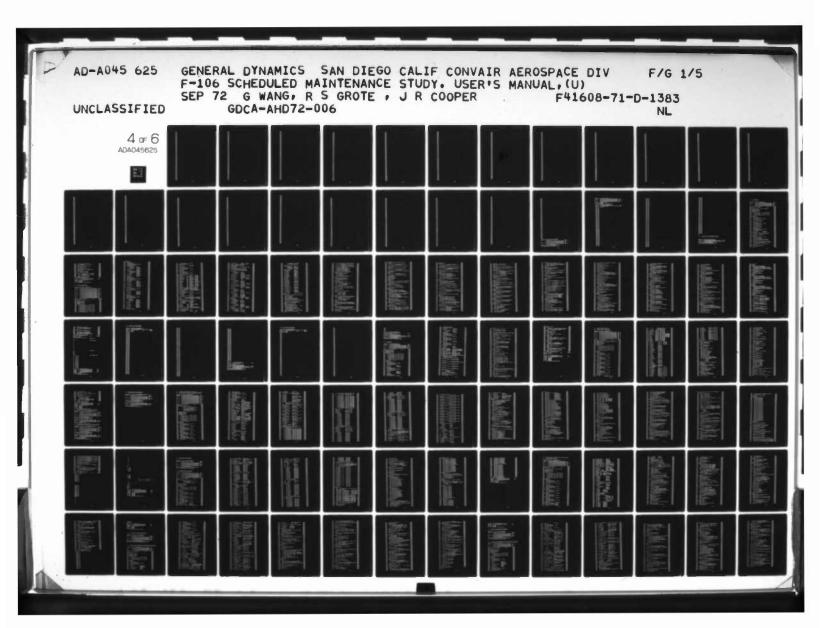
T/P 0T01 10200802080 /* PLACE T/P CUNTROL CARDS BEFORE THIS CARD

6.5 DATA BANK GENERATION PROGRAMS

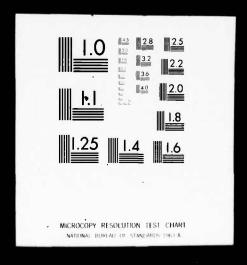
6.5.1 SORT ACCEPTABLE WUC

```
//19897A JUB
//C9897S EXEC
//CHG.TU22
//CHG.TU22
//
//CHG.TFGIN
TFG TU22
11000
11CA1
11CAA
11CB1
11CBA
11CC1
11CDA
11CC1
11CDA
11CC1
11CDA
11CC1
11CDA
11CC1
11CDA
11CC1
11CCA
11COI
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360 CDS
    11CJ1
11U0U
    11UA0
11UAA
11UAB
  110AC
110AC
110AE
110AF
110AF
110BA
110BB
  11088
11080
11086
11000
1100A
1100B
1100C
    11UCE
11UCF
11UCG
  110CG
110CH
110CJ
110CK
110DG
110DA
110DG
       11000
       11UDE
  1100E
1100G
1100F
1100H
110E0
110EA
110EB
110EC
110ED
110EE
       11DEG
11DEH
11DFO
       110FA
110FB
110FC
    110FC
110FC
110FE
110FF
110FG
       110FJ
110G0
         110GA
```

110GB 110GC 1110GC 1110GC 1110GC 1110GC 1110H0 1110H1 1110



4 of 6 ADA045625



11FCC 11

11AJ1 11AQ1 11AQ1 11AQ1 11AQ1 12AQ0 12AQ1 12AQ1 12AQ1 12AQ1 12AQ1 12AQ1 12BQ1 138F1 138G1 138H1 13C00 13CA1 13CR1 13CC1 13CC1

13CF1
13CG1
13CM1

14C00 14C01 14C01

23HAF 23HAF 23HAF 23HAF 23HAF 23HAF 23HBB 23HBBB 23HBBBB 23HBBB 23HBBB 23HBBB 23HBBB 23HBBB 23HBBB 23HBBBB 23

434.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40
23.40

239RA 239RA 239RA 239RB 239RB

#1841 #1241 #1241 #1261

45AR1 45AR1 45AR1 45AV1 45AV1 45BA1 45BB1 45EBA 45EC1 45EE1 45EE1 45EE1 45EH1 45EM1 45EM1 45EM1 45EM1 45G01 46HCF 46HCG 46JAD 46JAD 46JAD 46JAD 46JAD 46JAD 46JAD 46JAD 46JBA 46 NF1
46 NG1
46 PG1
47 52CC1

74ADW 74ADX 74ADZ 74AEA 74AEA 74AEC 74AEG 74AEG 74AEH 74AEH 74AEH 74AEK 74AEK 74AEN 74AEN 74AEN 74AEN 74AEN 74AEN 74AEN 74AEN 74AEA 74AGA 74AGB 74AJI 74AJI 74AJI 74AJI 74API 74API 74APP 748V1
748X1
748X1
748X1
748X1
748X1
748X1
748X1
748X1
748X1
748BA
748BA
748BB

740CC 740CE 74FDW 74FDW 74FDZ 74FDZ 74FD3 74FD3 74FD6 74FD6 74FD6 74FD9 74FEA 74FD7 74FEA 74FFA

74FFB
74FFC
74FFC
74FFC
74FFC
74FFC
74FFF
74FFF
74FFF
74FFF
74FFH
74FFH
74FFH
74FFH
74FFH
74FFH
74FFH
74FH1
74H01

74KR1
74LR1
75LR1
75LR1 758EC 758F1 758F8 758FC 758G1 758G1 758H1 758H1 758J3 758J3 758J3 758J3 758L1 758A1 758A1 758A1 758A1 758A2 758A3 758A3

75CC1 75CC1 75CC01 75CF1 75CK1 75CK1 75UA1 75DA1 75DA6 75DA6 75DA6 75DA6 75DA6 75DA6 75DA6 75DB4 75DB4 75DB4 75DB4 75DB5 75DB5 75DB7 75DB7 75DB7 75DB7 75DB7 75DB7 75DB7 75DB7 75DB7 75DC1 75DC2 75DC2 75DCE 75EAI
75EAB
75EAB
75EAB
75EAB
75EBB
75EBB
75EBB
75EBB
75EBI

```
75HR1
 75HBA
75HBB
75HBC
 75HBD
75HBE
  75J00
75JA1
 75JB1
75JB4
75JB6
75JBC
75JBD
 75JC1
75JCA
75JCB
75JCC
75JCD
75JCD
75JC1
75JE1
 75JF1
75JG1
75JH1
75K00
75KAA
 75KAB
75KAC
75KAD
75KAE
75KAF
 75KAG
75KB1
 75KBA
75KBB
75KBC
75KC1
93A00
 93AA1
93AB1
 93AC1
 93AD1
93AE1
 93AEA
93AF1
93AGI
93AGI
93AH1
93AJ1
93AK1
93AM1
93AM1
93AM1
 93491
93AR1
93AS1
 93A11
93AU1
93AV1
97AA1
97AC1
 YTAE1
97AF1
97AH1
97AJ1
97AM1
97AM1
97AM1
97AM1
97AQ1
97AU1
97BC1
97BD1
•END
/+
//C98970 EXEC
```

74CA1 74BZ1
74CAA 74BZA
74CAA 74CAA
74CQA 74CAA
74CQB 74CAB
74CQB 74CAC
74CQC 74CAC
74CQC 74CAC
74CQC 74CAC
74CQC 74CAC
74CQC 74CCC
74CRA 74CCL
74CRA 74CCL
74CCA 74CCL
74CCA 74CCL
74CCA 74CCL
74CCA 74CCA
74CCA
74CCA 74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA
74CCA

```
74F8A 74FFA
74F8B 74FFB
74FBC 74FFC
74FBD 74FFD
        74FBE 74FFE
      74FBE 74FFE
74FBF 74FFF
74FBB 74FFB
74FBJ 74FFJ
74FBK 74FFK
74FBK 74FFK
74FBK 74FFK
74FBK 74FFK
       74EV1 74FG1
74EW1 74FH1
74EX1 74FJ1
     74EX1 74FJ1
74EU1 74FK1
74KB1 74KC1
74KB1 74KC0
74KB1 74KC0
74KC1 74KC1
74KD1 74KE1
74KDC 74KEC
74KE1 74KFC
74KE1 74KFC
74KFC 74KFC
74KFC 74KFC
74KFC 74KG1
74KFC 74KG1
     74KFA 74KGA
74KFC 74KGC
74KFC 74KGC
74KFC 74KGC
74KFE 74KGE
74KFF 74KGG
74KFH 74KGH
74KFJ 74KGJ
74KFL 74KGJ
74KFL 74KGL
   74KFK 74KGK
74KFL 74KGL
74KFL 74KH1
74KMA 74KJA
74KMA 74KJA
74KR1 74KM1
74KR1 74KM1
74KS1 74KM1
74KS1 74KM1
74KU1 74KQ1
74KU1 74KQ1
74G00 74PU0
74G01 74PA1
74G01 74PC1
74G1 74PC1
74G1 74PC1
74G1 74PC1
74G1 74PC1
   74GF1 74PE1
74GG1 74PF1
74GGA 74PFA
74GH1 74PG1
74GJ1 74PH1
74GK1 74PJ1
74GL1 74PK1
74GM1 74PL1
     74GP1 74PM1
74GQ1 74PM1
74GR1 74PP1
74GN1 74QA1
      746NA 74GAA
*END
```

6.5.2 SORT WUC FOR CONVERSION - MERGE

```
/*
//C9097N EXEC
//CHG,SORTIN
DD DSN>+P.9897401,015PX(0LD,DELETE),
DCB>(LRC(L)3080,BLKSIZE)1600],LABELX:NSL,RETPD>000)
//CHG,SORTOUT
DD DSN>+P.9897403,D15PX(,PASS),SPACEX(CYL,[001:0013], CD12/13 1
DCB>(LRC(L)3080,BLKSIZE)1600]
//CHG,SYSIN
SORT F1ELDS>(002:005,CH,4),SIZE>E0000400
MODS E15>(E15:008,SORTL18,N),E18XE18,024,SORTL18,N)
```

6.5.3 WUC MERGE

```
//C98970 EXEC
                                                  P9655L.TIMF>01.ACCT>D35323007
                                                 DU DSN>+P.9897403.DISP>COLD:PASS]
DU DISP>C:PASS]:DIST>C+F3:D:PASS]:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F3:DIST>C+F
 //CHG.TU12
                                                                                                                                                                                                                                                D12-IN
                                                                                                                                                                                                                                              CT14
 //CHG. TU14
                                                                                                                                                                                                                                                T14
CT24
                                                                                                                                                                                                                                                 1440 CDS
                                                                                                                                                                                                                                                       C98970
                                                                                                                                                                                                                                                        C98970
                      REMARKS.
MODIFY WUC FILE TO CONSIDER WUC CONVERSION.
01050
                                                                                                                                                                                                                                                        C98970
 01060
                      ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
02000
                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                       C98970
02010
                      SOUNCE-COMPUTER. IPM-360.
OBJECT-COMPUTER. IBM-360.
INPUT-OUTPUT SECTICA.
FILE-CONTROL.
                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                        C98970
 02030
 02100
02110
                                                                                                                                                                                                                                                        C98970
                                   SELECT IN-FILE-65-110

RESERVE 1 ALTERNATE AREA.
SELECT IN-FILE-66-1

RESERVE 1 "LTERNATE AREA.
SELECT IN-FILE-#UC

PESERVE 1 "LTERNATE AREA.
A DIVISION.
                                                                                                                                        ASSIGN TO UT-S-TUIA
 02120
                                                                                                                                                                                                                                                        C98970
02130
                                                                                                                                                                                                                                                        COROTA
                                                                                                                                        ASSIGN TO UT-S-TUIE
                                                                                                                                                                                                                                                        C98970
 02190
                                                                                                                                                                                                                                                         C98970
                                                                                                                                       ASSIGN TO UT-S-TU24
 02200
                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                         C98970
 02210
                       DATA DIVISION.
 10000
                                                                                                                                                                                                                                                         C98970
                      DATA DIVISION.
FILE SECTION.
FD IN-FILE-65-110
RECORDING MODE IS F
BLOCK CONTAINS 50 RECORDS
RECORD CONTAINS 20 CH
LABEL RECORDS ARE OMITTED
DATA RECORDS AFE IN-REC-65-110.
 10100
                                                                                                                                                                                                                                                        C98970
 10120
                                                                                                                                                                                                                                                        C98970
 10130
10140
                                                                                                                                                                                                                                                        COROZO
                                                                                                                                     CHARACTERS
                                                                                                                                                                                                                                                         C98970
 10150
                                                                                                                                                                                                                                                        C98970
 10160
                                   DATA RECORDS AFE IN-REC-65-110.
IN-REC-65-110 SYNC.
02 OLD-REC-WUC PICTURE X[5].
02 FILLER PICTURE X[15].
IN-FILE-66-1
RECOPUTIG MODE IS F
BLOCK CONTAINS 20 RECORDS
RECORU CONTAINS 80 CH
LARLA RECORDS ARE OMITTED
DATA RECORDS ARE IN-REC-66-1.
IN-REC-66-1 SYNC.
02 FILLER PICTURE X.
02 FILLER PICTURE X.
02 FILLER PICTURE X[74].
IN-FILE-WUC
RECORUTING MODE IS F
                                                                                                                                                                                                                                                        C98970
 10170
                       01
                                                                                                                                                                                                                                                         C98970
 10180
                                                                                                                                                                                                                                                        C98970
 10190
                                                                                                                                                                                                                                                         C98970
 13100
                                                                                                                                                                                                                                                        C98970
 13110
                                                                                                                                                                                                                                                         C98970
13120
13130
                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                       C98970
                                                                                                                                     CHARACTERS
 13140
                                                                                                                                                                                                                                                        C98970
 13150
                                                                                                                                                                                                                                                        C98970
                       01
 13170
                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                        C98970
 13200
                                                                                                                                                                                                                                                        C98970
                      FD IN-FILE-WUC
RECORUING MODE IS F
BLOCK CONTAINS 50 RECORDS
RECORU CONTAINS 20 CHARACTERS
LABEL RECORDS ARE REC-IN-WUC.

O1 REC-IN-WUC SYNC.

O2 IN-REC-WUC PICTURE XXXXX,
O2 FILLER PICTURE XLI51,
WORKING-STOHAGE SECIION.

O1 HO-WUC-PROC PICTURE 9999 VALUE ZERO SYNC.
O1 TABLE4-WUC SYNC.

O1 TABLE4-WUC SYNC.
                                                                                                                                                                                                                                                        C98970
 14100
                       FD
 14120
14130
                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                       C98970
 14140
                                                                                                                                                                                                                                                         C98970
 14150
                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                         C98970
 14170
                                                                                                                                                                                                                                                        C98970
 14180
                                                                                                                                                                                                                                                        C98970
 14190
                                                                                                                                                                                                                                                         C98970
 30000
                                                                                                                                                                                                                                                        C98970
 30400
 30420
                                                                                                                                                                                                                                                        C98970
                      01 TABLE4-WUC SYNC.
02 TABLE-WUC PICTURE XEST.
02 FILLEH PICTURE XEST.
PHOCEPUHE DIVISION.
 30440
                                                                                                                                                                                                                                                        C98970
 30500
 30600
                                                                                                                                                                                                                                                        C98970
 50000
                                                                                                                                                                                                                                                         C98970
 50010
                     OPEN-FILES.

OPEN INPUT IN-FILE-65-I10, IN-FILE-66-I.

OPEN OUPPUT IN-FILE-WUC.

MOVE ZERO TO NC-WUC-PROC.

MOVE ZERO TO NC-TAB2-PROC.

REAU IN-FILE-65-110 AT END GO TO CLOSE-FILES.

READ IN-FILE-66-1 AT END GO TO CLOSE-FILES.

MOVE TAU2-WUC TO TABLE-WUC.

COMPARE-FILES.

IF OLU-REC-WUC LESS THAN TABLE-WUC GO TO TUIN-LESS.

IF OLU-REC-WUC NOT EQUAL TO TABLE-WUC GO TO TUIN-LESS,

WRITE REC-IN-WUC FROM IN-REC-65-110.

ADD 1 TO NO-WUC-PROC.

REAU IN-FILE-65-110 AT END GO TO CLOSE-FILES.
                       OPEN-FILES.
                                                                                                                                                                                                                                                         C98970
 50020
                                                                                                                                                                                                                                                        C98970
 50030
 50040
                                                                                                                                                                                                                                                         C98970
 50050
                                                                                                                                                                                                                                                        C98970
 50060
                                                                                                                                                                                                                                                         C98970
 50070
                                                                                                                                                                                                                                                         C98970
50080
                                                                                                                                                                                                                                                        C98970
50100
50110
                                                                                                                                                                                                                                                        C98970
50120
                                                                                                                                                                                                                                                        C98970
 50130
                                                                                                                                                                                                                                                         C98970
                                    REAU IN-FILE-65-110 AT END GO TO CLOSE-FILES. GO TO R-TU12.
50140
                                                                                                                                                                                                                                                        C98970
50150
                                                                                                                                                                                                                                                         C98970
                      TU12-LESS.

WRITE PLC-IN-WUC FROM TABLE4-WUC.

ADD 1 TO NO-TAB2-PROC.
 50160
                                                                                                                                                                                                                                                        C98970
50170
                                                                                                                                                                                                                                                        C98970
50180
                                                                                                                                                                                                                                                         C98970
50190
                                    60 TO A-TU12.
                                                                                                                                                                                                                                                        C98970
                      TU14-LESS.
50200
```

```
WRITE REC-IN-WUC FROM IN-REC-65-110.
                                                                                                    C98970
50210
              ADD 1 TO NO-MUC-PROC.
READ IN-FILE-65-110 AT END GO TO CLOSE-FILES.
50220
                                                                                                    C98970
50230
                                                                                                    C98970
               GO TO COMPARE-FILES.
50240
                                                                                                    C98970
50250
              REAU IN-FILE-66-1 AT ENO GO TO R-TU14.
MOVE TAB2-WUC TO TABLE-WUC.
GO TO COMPARE-FILES.
50260
                                                                                                    C98970
50270
50280
                                                                                                     C98970
50290
50300
         R-TU14
              WRITE REC-IN-WUC FROM IN-REC-65-110.
AOD 1 TO NO-WUC-PROC.
                                                                                                    C98970
                                                                                                    C98970
50305
               READ IN-FILE-65-110 AT ENO GO TO CLOSE-FILES.
                                                                                                    C98970
50310
               GO TO R-TU14.
50320
         CLOSE-FILES.
                                                                                                    C98970
50720
              CLOSE IN-FILE-65-110 WITH LOCK, IN-FILE-66-1 WITH LOCK, IN-FILE-FUC WITH LOCK.
                                                                                                    C98970
50730
                                                                                                    C98970
50760
                                                                                                    C98970
50780
                                                                                                     C98970
         MESSAGES.
50790
50791
              DISPLAY : RECS COPIED FROM WUC FILE 1 NO-WUC-PROC
                                                                                                    C98970
                                UF IN CONSOLE.
50800
              DISPLAY 1 RECS COPIED FROM TABLE 2 1 NO-TAB2-PROC
                                                                                                    C98970
50810
                                                                                                    C98970
              UPON CONSOLE.
DISPLAY 1 EOU CABAT 1 UPON CONSOLE.
50820
50835
                                                                                                    C98970
              GOBACK .
50840
           GUBACK.
PLACE COBOL SOURCE BEFORE THIS CARD
GIN DO +,SPACE>(CYL,[1:1])
PLACE TFG DATA BEFORE THIS CARD
14 00 01SP>(DLO,KEEP],VOL>SER>+F3,UNIT>T+F3
/* PL/
                                                                                                 1440 CDS
//TPR.TU14
                                                                                                 T14
                    DO DISPOCOLD . KEEP J. VOLSER>+F7.UNIT>T+F7
//TPR.TU24
                                                                                                  124
//TPR.TPRIN
T/P TUI2
T/P TUI4
                           .SPACE>[TRK,[1,13]
                    DD
                 19980802080
                 19980202020
      TU24
            PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

6.5.4 DATA BANK PROGRAM

```
//C9097E JOB
                     O1+1 G. WANG
                                            : PHTY>02+TYPRUN>HOLO
//C9897E EXEC
                     F 3655L, TIME>30, ACCT>035323007
:/CHG. TU12
                            DISP>[ +PAS5 ]. UNIT>[ A+F1+2+DEFEH ].DSN>+A.9895440.
                                                                                                     CT12/13 1
                     VOLDSERS(#F1:A+F1:R+F1:C+F1:D+F1:E+F1:J+F1:G+F1:H+F1:
I+F1:J+F1:K+F1:L+F1:M+F1:N+F1:O+F1:P+F1:Q+F1:K+F1:S+F11
                                                                                                      TI2
                     CJ 1)15P2C+PASS JAUNITYCT+F3+1+DEFER J+DSNY+C+9895435+
V7L>SER>C+F3+A+F3+B+F3+C+F3+D+F3+E+F3+F+F3+G+F3+H+F4+
1+F3+J+F3+K+F3+L+F3+H+F3+N+F3+O+F3+P+F3+Q+F3+R+F3+S+F3+
//CHG. TU14
                     T14
//CHG.TU15
                                                                                                     CTIS
//CHG.TU22
                                                                                                     CT22
//
//CHG. TU24
                                                                                                     CT24
                                                                                                     CT24
                                                                                                       T24
//CHG.TU25
                                                                                                     CT25
                     VOL>SER>[ +F8,A+FA,B+F8,C+F8,D+F8,E+F8,F+F8,G+F8,M+F8,
1+F8,J+F8,K+F8,L+F8,M+F8,N+F8,O+F8,P+F8,G+F8,R+F8,S+F8]
                                                                                                       T25
                     O) **SPACE>[CYL+[1+1]]
//CHG. INPUT
                                                                                                       1440 CDS
00000
                                                                        G. WANG
         DATE-WRITTEH. 7 FEB 72.
01 040
                                                                                                          C98970
01050
         REMARKS.
                                                                                                          C98970
                   UATA BANK PROGRAM FOR VE-12.
01060
                                                                                                          C98970
         ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. 18M-360.
OBJECT-COMPUTER. 18M-360.
02000
                                                                                                          C98970
                                                                                                          C98970
C98970
02010
02020
02030
         INPUT-OUTPUT SECTION.
FILE-CONTROL.
02100
                                                                                                          C98970
02110
                                                                                                          C98970
               SELEC. IN-FILE-65-110
R'SERVE 2 ALTERNATE AREA.
SELECT IN-FILE-IRAN
RESERVE I ALTERNATE AREA.
02120
                                                          ASSIGN TO UT-S-TU14
                                                                                                          C98970
02130
                                                                                                          C98970
02140
                                                          ASSIGN TO UT-S-TU25
                                                                                                          C98970
                                                                                                          C98970
               SELEC' IN-FILE-AIE
R'SERVE 1 ALTERNATE AREA.
SELECT IN-FILE-66-1
02160
                                                          ASSIGN TO UT-S-TU15
02170
                                                                                                          C98970
                                                          ASSIGN TO UT-S-TU12
                                                                                                          C98970
               RISERVE 2 ALTERNATE AREA.
SELECT 1N-FILE-WUC
02190
                                                          ASSIGN TO UT-S-TU24
                                                                                                          C98970
               RESERVE 1 ALTERNATE AREA.
SELEC, DUT-FILE
RLSERVE 2 ALTERNATE AREA.
SELEC* DATA-IN-FILE
02210
02220
                                                          ASSIGN TO UT-S-TU22
                                                                                                          COAGTO
                                                                                                          C98970
02240
                                                          ASSIGN TO DA-S-DT01
                                                                                                          C98970
                     RESERVE 1 ALTERNATE AREA,
02250
                                                                                                          C98970
```

```
10000 DAYA DIVISION.
-10010 FILE SECT_ON.
10100 FD IN-FILE-6S-110
10120 RECORDING MODE IS F
                                                                                                                                                                                                                    C98970
                                                                                                                                                                                                                     C98970
                                                                                                                                                                                                                     C98970
                                 BLOCK CONTAINS SO RECORDS
RECOR') CONTAINS 60
    10130
                                                                                                                                                                                                                     C98970
                                                                                                                  CHARACTERS
   10140
                                                                                                                                                                                                                     C98970
                                LABEL RECORDS ARE OMITTED
DATA RECORDS ARE IN-REC-65-110.
IN-RE:-65-110 SYNC.
   10150
   10160
                                                                                                                                                                                                                    C98970
   10170
                     01
                                                                                                                                                                                                                    C98970
                                 02 MIS-65-110.
03 MISSION-65-110
03 DESIGN-65-110
0: SERIES-65-110
   10180
10190
                                                                                                                                                                                                                    C98970
                                                                                                                PICTURE X.
                                                                                                                PICTURE XXX.
PICTURE X.
PICTURE XC233.
    10200
                                                                                                                                                                                                                     C98970
                                        TIML=0S=110 PICTURE X.

TIML=0S=110 PICTURE X.

PICTURE Y.

PICTURE Y.

PICTURE Y.

PICTURE Y.

PICTURE 99.

PICTURE 99.

PICTURE 99.

PICTURE P9.

PICTURE

PICTU
   10210
                                                                                                                                                                                                                     C98970
                                 0. SERIES-05-110
02 FILLER
02 M.1117-CODE-65-110
02 FILLER
02 TIMU-05-110
                                                                                                                                                                                                                    C98970
   10220
    10230
                                                                                                                                                                                                                     C98970
   10240
                                                                                                                                                                                                                     C98970
   10250
                                 02
   10280
                                                                                                                                                                                                                    C98970
   10340
                                                                                                                                                                                                                    C98970
   10350
                                                                                                                                                                                                                     C98970
   10360
                                                                                                                                                                                                                     C98970
                                                                                                                PICTURE X.
PICTURE XX.
PICTURE XX.
PICTURE XC63.
PICTURE XC63.
    10370
   10380
                                                                                                                                                                                                                     C98970
   10390
                                                                                                                                                                                                                     C98970
                                           J-DAY-65-110
FILLER
   10400
                                  02
                                                                                                                                                                                                                     C98970
   10410
                                02 FILLER PI
02 REC-ID-6S-110 PI
02 FILLER PI
IN-FILE-IRAN
RECORLING MODE IS F
BLOCK CONTAINS 30 RECORDS
PECORD CONTAINS 80 C
LABEL RECORDS ARE OMITTED
DATA FECORDS ARE IN-REC-IRAN.
IN-REC-IRAN SYNC.
02 SER-NO-IRAN PI
02 SLRIES-IHAN PI
02 FILLER PI
                                  02
                                                                                                                                                                                                                    C98970
   10420
                                                                                                                                                                                                                     C98970
   10430
                                                                                                                PICTURE X.
                                                                                                                                                                                                                     C98970
   11100
                     FU
                                                                                                                                                                                                                     C98970
   11120
   11130
                                                                                                                                                                                                                    C98970
   11140
                                                                                                                   CHARACTERS
                                                                                                                                                                                                                     C98970
                                                                                                                                                                                                                    C98970
C98970
   11150
   11160
   11170
                     01
                                                                                                                                                                                                                     C98970
                                                                                                                PICTURE XEBJ.
   11180
11190
                                                                                                                                                                                                                     C9897n
                                                                                                                PICTURE X.
PICTURE X[7].
PICTURE 9.
                                                                                                                                                                                                                    C98970
                                 02 FILLER
02 INAM-VIS-NO
   11200
                                                                                                                                                                                                                     C98970
   11210
                                                                                                                                                                                                                    C98970
   11220
                                 02 FILLER
                                                                                                                PICTURE X.
                                                                                                                                                                                                                    C98970
                                                                                                                PICTURE 99.
PICTURE X[11].
  11230
11240
                                          II AN-COUE
                                                                                                                                                                                                                    C98970
                                 02 FILLER
                                                                                                                                                                                                                    C98970
                                             IHAN-START-UAY
   11250
                                                                                                                PICTURE S9999.
                                                                                                                                                                                                                     C98970
                                          FILLER
IFAH-END-DAY
                                                                                                                PICTURE X.
PICTURE S9999.
  11260
11270
                                 n2
                                                                                                                                                                                                                    CGAGTO
                                                                                                                                                                                                                    C98970
                                02 FILLER
   11280
                                                                                                                PICTURE X[40]
                                                                                                                                                                                                                     C98970
                     FD
   12100
                                                                                                                                                                                                                    C98970
                                 RECOPLING MODE IS F
BLOCK CUNTAINS 60 RECORDS
RECORD CONTAINS 50
   12120
   12130
                                                                                                                                                                                                                     CQ8970
                                                                                                                  CHARACTERS
                                                                                                                                                                                                                    C98970
   12140
                                 LABEL RECORDS ARE OMITTED DATA . ECONDS ARE IN-REC-AIE. IN-REC-AIE SYNC.
                                                                                                                                                                                                                     C98970
   12160
                                                                                                                                                                                                                     C98970
   12200
                                                                                                                                                                                                                    C98970
                                                                                                               PICTURE XC93.
PICTURE XC53.
PICTURE XC103.
PICTURE XC81.
PICTURE XC123.
                                 02 FILLER
02 WUC-AIE
02 FILLER
02 SFR-NU-AIE
   12210
                                                                                                                                                                                                                     C98970
   12220
                                                                                                                                                                                                                     C98970
   12290
                                                                                                                                                                                                                    C98970
                                 02 FILLER
   12300
                                                                                                                                                                                                                    C98970
                                 02 J-DAY-AIE
02 FILLER
                                                                                                                PICTURE 9999.
                                                                                                                                                                                                                    C98970
   12310
   12320
                               02 FYLLER
IN-FILE-66-1
RECORDING MODE 1S F
BLOCK CONTAINS 30 RECORDS
RECORD CONTAINS 90
LABLE RECORDS ARE OMITTED
DATA RECORDS ARE IN-REC-66-1.
IN-REC-66-1 SYNC.
                     FD
   13110
                                                                                                                                                                                                                    C98970
                                                                                                                                                                                                                     C98970
   13120
   13130
                                                                                                                  CHARACTERS
                                                                                                                                                                                                                     C98970
   13140
                                                                                                                                                                                                                    C98970
   13150
  13160
                     01
                                                                                                                                                                                                                    C98970
   13170
                                           MDS-66-1.
                                                                                                                                                                                                                    C98970
                                           0.5 MISSION-66-1
0. DESIGN-66-1
0.1 SERIES-66-1
                                                                                                                PICTURE XXX.
   13180
                                                                                                                                                                                                                     C98970
   13190
                                                                                                                                                                                                                    C96970
   13200
                                                                                                                PICTURE X.
                                                                                                                                                                                                                     C98970
                                           FILLER
   13210
                                                                                                               PICTURE X[7]
                                                                                                                                                                                                                    C98970
  13220
                                           SLR-NO-66-1
                                                                                                               PICTURE XC83.
PICTURE XC233.
                                02
                                                                                                                                                                                                                    C98970
                                                                                                                                                                                                                    C98970
                                           WUC-65-1
A,C-66-1
  13240
                                                                                                                PICTURE XC5 J.
                                                                                                                                                                                                                    C98970
  13300
                                                                                                                PICTURE X.
                                 02
                                                                                                                                                                                                                    C98970
   13310
                                            W. C-66-1
                                                                                                                PICTURE X.
                                                                                                                                                                                                                    C98970
                                          HMC-06-1
UNIIS-66-1
L/BUR-60-1
FILLER
                                                                                                               PICTURE XXX.
PICTURE 99.
PICTURE 9(4).
PICTURE X(24).
  13320
                                 02
                                                                                                                                                                                                                    C98970
  13330
                                                                                                                                                                                                                    C98970
  13340
                                 02
  13370
                                 02
                                                                                                                                                                                                                    C98970
                                02 J-DAY-66-1
02 FILLER
   13390
                                                                                                                PICTURE 9[4].
                                                                                                                                                                                                                    C98970
  13390
                                                                                                               PICTURE X.
                                                                                                                                                                                                                    C98970
   14100
                     FD
                                 IN-FILL-WIC
                                                                                                                                                                                                                    C98970
  14120
                                RECOPULING MODE IS F
BLOCK CONTAINS 50 RECORDS
                                                                                                                                                                                                                    C98970
```

```
RECORD CONTAINS 20
LABEL RECORDS ARE OMITTED
DATA MECORDS ARE REC-IN-WUC.
14140
                                                                     CHARACTERS
                                                                                                                                  C98970
14150
14160
                                                                                                                                  C98970
                                                                                                                                  C98970
                  DATA PECHNONIS ARE REC-IN-AUC SYNC.

02 IN-REC-WUC

02 F'LLER

OUT-FILE

RECORDING MODE IS F
14170
                                                                                                                                  C98970
           01
                                                                    PICTURE XXXXX.
14180
14190
                                                                    PICTURE XE151.
                                                                                                                                  C98970
                                                                                                                                  C98970
15100
15120
           FD
                                                                                                                                  C98970
                   BLOCK CONTAINS 60 RECORDS
RECORD CONTAINS 50
 5130
                                                                                                                                  C98970
                                                                     CHARACTERS
15140
15150
                   LABEL RECORDS ARE OMITTED
                                                                                                                                  C98970
                  DATA RECORDS ARE OUT-REC. OUT-REC SYNC.
                                                                                                                                  C98970
15160
15170
                                                                                                                                  C98970
           01
                  02 FILLER
DATA-IN-FILE
                                                                    PICTURE XC501.
15180
                                                                                                                                  C98970
           FD
16100
                  DATA-IN-FILE
RECORDING MODE IS F
BLOCK CONTAINS 20 RECORDS
RECOPD CONTAINS 80
LABEL RECORDS ARE STANBARD
DATA-IECORDS ARE DATA-IN-REC.
DATA-'N-REC
PROSECURACE SECTION.
16110
                                                                                                                                  C98970
                                                                                                                                  C98970
16130
                                                                     CHARACTERS
                                                                                                                                  C98970
16140
16150
                                                                                                                                  C98970
                                                                                                                                  C98970
16160
                                                                    PICTURE XE 80 J.
                                                                                                                                  C98970
16200
            WORKING-STORAGE SECTION.
                                                                                                                                  C98970
30000
           77
                   CUR-WLEK
                                                      SYNC
                                                                    PICTURE 999
                                                                                                 VALUE ZERO.
30020
                                                                                                VALUE ZERO.
VALUE ZERO.
VALUE SPACE.
VALUE ZERO.
30030
            77
                   IRAN-I LAG
                                                      SYNC
                                                                    PICTURE 9
PICTURE 9
                                                                                                                                  C98970
                                                                                                                                  C98970
30040
                   FILE-LOW-DATA
CUR-S-N
                                                      SYNC
                                                                    PICTURE XC8]
PICTURE 9C4]
PICTURE 9
                                                       SYNC
                                                                                                                                  C98970
30050
                   DATA-AVAIL-CODE
IN-1RAN
                                                      SYNC
SYNC
                                                                                                                                  C98970
30060
                                                                                                 VALUE ZERO.
                                                                                                                                  C98970
30070
                   START-IRAN-DAY
END-IRAN-DAY
                                                                    PICTURE S9999
PICTURE S9999
PICTURE 9999
30080
                                                      SYMIC
                                                                                                VALUE ZERO.
                                                                                                                                  C98970
                                                                                                 VALUE ZERO.
            77
                                                       SYNC
                                                                                                                                  C98970
SOUGO
                                                                                                VALUE ZERO.
30100
                                                       SYNC
                                                                                                                                  C98970
                   JDAY
                   WUC-TYPE
POS-TABLE-3
                                                                    PICTURE 9
30110
                                                      SYNC
                                                                                                                                  C98970
                                                                    PICTURE 9
PICTURE 999
PICTURE X[8]
PICTURE 9[4]
PICTURE XX
                                                       SYNC
                                                                                                 VALUE ZERO.
30140
                   POS-TAUCE-4
                                                      SYNC
                                                                                                VALUE ZERO.
VALUE 1999999991.
30150
                                                                                                                                  C98970
                                                                                                                                  C98970
30160
            77
                                                                                                VALUE 9999.
VALUE 1091.
VALUE 191.
VALUE 19991.
30170
                   EOF-JI'AY
                                                       SYNC
                                                                                                                                  C98970
                                                                                                                                  C98970
30210
            77
                   WUC-09
                                                       SYNC
                   NINE-X1
                                                                    PICTURE X
                                                       SYNC
                                                                                                                                  C98970
30220
30230
                                                       SYNC
                                                                                                                                  C98970
                                                       SYNC
                                                                     PICTURE XEST
                                                                                                 VALUE 1999991.
                                                                                                                                  C98970
                   NINE-X5
            77
30240
                   NINE-94
                                                       SYNC
                                                                    PICTURE S9999
PICTURE S999
                                                                                                VALUE -9999.
                                                                                                                                  C98970
30260
                                                                                                                                  C98970
30270
            77
                   NINE-53
TARCE-SIZE
                                                      SYNC
                                                                     PICTURE 999
                                                                                                 VALUE 250.
                                                       SYNC
                                                                                                                                  C98970
            77
30280
30290
                   TAB-512-1
                                                      SYNC
                                                                    PICTURE 999
                                                                                                VALUE 251.
                                                                                                                                  C98970
                  TAGE-12-1

STINC PICTURE 999 VALUE ZERO.

MAX-TAB-3 SYNC COMPUTATIONAL PICTURE S999 VALUE ZERO.

MAX-TAB-4 SYNC COMPUTATIONAL PICTURE S999 VALUE ZERO.

R-B SYNC COMPUTATIONAL PICTURE S999 VALUE ZERO.

ATC-11DLX COMPUTATIONAL PICTURE S999 VALUE ZERO SYNC.

NO-A-C-PROC PICTURE 999 VALUE ZERO SYNC.
30330
            77
                                                                                                                                  C98970
30331
                                                                                                                                  C98970
30332
30340
                                                                                                                                  C98970
C98970
30350
                                                                                                                                  C98970
30400
            01
                                                                                                                                  C98970
                  NU-AC-PROC PICTURE 999
LIST-SER-NO SYNC.

02 SER-NO OCCURS 4 TIMES PICTURE XE8J
LIST-WEEK-NO OCCURS 4 TIMES PICTURE 999.
NO-WEEK-PROC PICTURE 999
                                                                                                                                  C98970
                                                                    PICTURE XE83.
30420
                                                                                                                                  C98970
30430
                                                                                                                                  C98970
50440
                                                                                                                                  C98970
30450
                                                                                                VALUE ZERO SYNC.
                                                                                                                                  C98970
30460
                   WUC-TEMP SYNC.
                                                                                                                                  C98970
                   02 WUC-MUR
                                                                    PICTURE XX.
30470
                                                                                                                                  C98970
30480
                                                                    PICTURE XXX.
                                                                                                                                  C98970
                  WUC-1 REDEFINES WUC-TEMP SYNC.

102 WUC-3-DIG PICTURE XXX.

102 WUC-2-DIG PICTURE XXX.

103 PICTURE XXX.

104 PICTURE XXX.

105 PICTURE XXX.

105 PICTURE XXX.

105 PICTURE XXX.

106 PICTURE XXX.
30490
            01
                                                                                                                                  C98970
30500
                                                                                                                                  C98970
                                      COMPUTATIONAL PICTURE S9999
COMPUTATIONAL PICTURE S9999
COMPUTATIONAL PICTURE S9999
PICTURE 999
30510
                                                                                               VALUE ZERO SYNC.
VALUE ZERO SYNC.
VALUE ZERO SYNC.
SYNC.
30520
           01
                                                                                                                                  C98970
30530
                  KNA
                                                                                                                                  C98970
30540
30550
           01
                 TEMP PICTURE 999
LIST-DATA-WEEK SYNC.

D2 DATA-WEEK OCCURS 4 TIMES PICTURE S9.
LIST-DATA-WEEK SYNC.

D2 DATA-WEEK-A REDEFINES LIST-DATA-WEEK SYNC.

D2 DATA-WEEK-1 PICTURE S9.

D2 DATA-WEEK-2 PICTURE S9.

D2 DATA-WEEK-3 PICTURE S9.

D2 DATA-WEEK-4 PICTURE S9.

D3 DATA-WEEK-4 PICTURE S9.

D6 PICTURE S9.
                   KNB
                                                                                                                                  C98970
           01
                                                                                                                                  C98970
30560
                                                                                                                                  C98970
30590
                                                                                                                                  C98970
30600
            01
30601
                                                                                                                                  C98970
30602
                                                                                                                                  C98970
30603
                                                                                                                                  C08970
30604
                                                                                                                                  C98970
30605
           01
                                                                                                VALUE I.
30610
                                                                                                                                  C98970
                                                                    PICTURE S99 COMPUTATIONAL.
PICTURE X[8].
PICTURE 9.
PICTURE 9.
PICTURE 9.
PICTURE X[5] VALUE ZERO.
PICTURE X[5] VALUE ZERO.
30620
                   FILE-NO
                                                      SYNC
30630
           01
                  SN-TEMP
                                                      SYNC
                                                                                                                                  COAGTO
30640
                                                                                                                                  C98970
                                                                                                                                  C98970
                   IND-TE "P
RECUPUS-PASS
30650
            01
                                                      SYNC
                                                                                               VALUE ZERO.
30700
           01
                                                      SYNC
                                                                                                                                  C98970
30710
                                                      SYNC
                                30720
                                                                                                                                  C98970
                  MSG SYNC.

02 PUS PICTURE 99999.

02 FILLER PICTURE XC151 VALUE SPACE.

DEFINE-FILE-DATA SYNC.
30800
                                                                                                                                  C98970
30810
                                                                                                                                  C98970
30820
                                                                                                                                  C98970
30900
                                                                    PICTURE 9
                                                                                                VALUE 1.
                  02 FILE-DATA-I
02 FILE-DATA-2
30910
                                                                                                                                  C98970
30920
                                                                                                                                  C98970
```

```
F1_L-DATA-3 PICTURE 9 V
F1_L-DATA-4 PICTURE 9 V
LER REVEFINES DEFINE-F1LE-DATA SYNC.
F1_L-DATA OCCURS 4 TIMES PICTURE 9.
                  02 F1-L-DATA-3
                                                                                           VALUE 1.
30940
                                                                                                                          C98970
           01
                  FILLER
                                                                                                                          C98970
C98970
31100
31290
31400
                  DEFINE WOR-CODES SYNC.
UZ NOR-CODE OCCURS 17 TIMES PICTURE X.
           01
                                                                                                                           C98970
           01
                  WUC-ENGINES SYNC.
02 ENGINE-WUC
                                                                                                                           C98970
31490
                                                                PICTURE XXX OCCURS ? TIMES.
                                                                                                                           COASTO
                  D2 ENGINE-BUC PICTURE XXX OCCURS TARLE-BUC SYNC.

D2 L1SI-BUC OCCURS 3000 TIMES PICTURE XIB1.

BUC-DEFINE-TABLE SYNC.

D2 BUC-POS-TYPE OCCURS 22 TIMES PICTURE XX.

D2 BUC-POS-START OCCURS 22 TIMES PICTURE 9999.

BUC-POS-END OCCURS 22 TIMES PICTURE 9999.
31600
           10
                                                                                                                           C98970
                                                                                                                          C98970
31610
 32100
33510
33520
                                                                                                                          C98970
33530
                                                                                                                           C98970
                  REC-TY L-I SYNC.
40000
           0.1
                                                                                                                          C98970
                        -TY -T SYNC.

MCS-TYPE-1.

0.5 MISSION-TYPE-1

0.5 SERIES-TYPE-1

SER-NO-TYPE-1
                                                                                                                          C98970
40010
                  02
                                                                PICTURE X.
PICTURE XXX.
40020
                                                                                                                           C98970
40030
                                                                                                                          C98970
                                                                PICTURE X.
40040
                                                                                                                          C98970
                                                                PICTURE XEAJ.
PICTURE 999.
PICTURE XE123
PICTURE S9999.
40050
                                                                                                                          C98970
                         WEEK-NO-TYPE-1
                                                                                                                          C98970
40460
                        FILLER
FL'-TIME-TYPE-I
                                                                                                                           C98970
40070
                                                                                           VALUE SPACE.
40080
                   02
                                                                                                                          C98970
                                                                PICTURE XE31
PICTURE S9999.
PICTURE S9999.
40090
                         FILLER
                                                                                           VALUE SPACE.
                                                                                                                          C98970
                  02
                        SURFIES-TYPE-1
LA WINGS-TYPE-1
40100
                                                                                                                           C98970
                                                                                                                          C98970
40120
                  02
                        F1'LEH
PEC-ID-TYPE-1
                                                                PICTURE XE 05 1
40130
                                                                                           VALUE SPACE.
                                                                                                                           C98970
                                                                 PICTURE 9
                                                                                           VALUE 1.
VALUE SPACE.
                                                                                                                          COASTO
40140
                  02
40150
                                                                 PICTURE X
                         FILLER
                                                                                                                           C98970
                  REC-TY'L-2 SYNC.
02 MDS-TYPE-2.
40400
           01
                                                                                                                          C98970
                                                                                                                          C98970
40410
                        03 MISSION-TYPE-2
0. DESIGN-TYPE-2
0. SERIES-TYPE-2
                                                                PICTURE X.
PICTURE XXX.
PICTURE X.
PICTURE XE8].
40420
                                                                                                                           C98970
40430
                                                                                                                          C98970
40440
                                                                                                                          C98970
                         SEH-NO-TYPE-2
40450
                                                                                                                           C98970
                  02
                                                                PICTURE 999.
PICTURE X[9]
PICTURE 5999.
                         WECK-HO-TYPE-2
                                                                                                                          C98970
40460
                  02
40470
                        F1_LER
IH4:1-VIS-NO-TYPE-2
                                                                                           VALUE SPACE.
                                                                                                                          C98970
40480
                                                                                                                          C98970
                  02
                                                                PICTURE X[4]
PICTURE $999.
PICTURE $9999.
PICTURE $9999.
40490
                         F1LLER
                                                                                           VALUE SPACE.
                                                                                                                           C98970
                         IN WI-COUE-TYPE-2
40:500
                  02
                                                                                                                          C98970
                  02
                         IH41-START-DAY-TYPE-2
                                                                                                                          C98970
40510
40530
                  02
                         1HAN-END-DAY-TYPE-2
                                                                                                                          C98970
                                                                                           VALUE SPACE.
VALUE 2.
VALUE SPACE.
                        FILLER
                                                                 PICTURE XE 051
                                                                                                                          C98970
40540
                  02
                        RE .- ID-TYPE-2
FI'LER
40550
                                                                PICTURE 9
                                                                                                                          C98970
40560
                  02
                                                                 PICTURE X
                                                                                                                          C98970
           01
                  REC-TYPL-3 SYNC.
                                                                                                                          C98970
40700
                        MUS-TYPE3.
03 MISSION-TYPE-3
03 DESIGN-TYPE-3
03 SERIES-TYPE-3
40710
                  02
                                                                                                                          C98970
                                                                PICTURE X.
PICTURE XXX.
PICTURE X.
                                                                                                                          C98970
40730
                                                                                                                          C98970
40740
                        SE 1-NO-TYPE-3
WEEK-HO-TYPE-3
WUC-TYPE-3
                                                                PICTURE XEAJ.
PICTURE 999.
PICTURE XESJ.
40750
                                                                                                                           C98970
40760
                                                                                                                          C98970
40770
                                                                                                                           C98970
                  02
40780
                        FILLER
DATA-TYPE-3A.
                                                                                           VALUE SPACE.
                                                                PICTURE XE4]
                                                                                                                          C98970
                                                                                                                          C98970
                        03 UNITS-TYPE-3
03 LARON-TYPE-3
40800
                                                                PICTURE 5999
                                                                                                                           C98970
                                                                PICTURE $9999.
PICTURE $999.
PICTURE $9999.
                                                                                                                          C98970
40810
40840
                        03 NORM-TYPE-3
03 NORS-TYPE-3
03 UNITS-47
                               A1E-TYPE-3
                                                                                                                          C98970
40450
                                                                                                                          C98970
                                                                PICTURE S999.
PICTURE S999.
PICTURE XEO23 VALUE SPACE.
                                                                                                                          C98970
40874
                               UNITS-ATC-TYPE-3
                                                                                                                          C98970
C98970
40876
                        FI_LER
40880
                                                                                           VALUE 3.
VALUE SPACE.
                        REC-ID-TYPE-3
                                                                PICTURE 9
                                                                                                                           C98970
40890
                  02 FILLER
REC-TYPL-4 SYNC.
40900
                                                                PICTURE X
                                                                                                                          COROZO
41100
           01
                                                                                                                          C98970
                 02 ML3-TYPE-4.
03 MISSION-TYPE-4
03 DESIGN-TYPE-4
03 SERIES-TYPE-4
41110
                                                                                                                          C98970
C98970
                                                               PICTURE XXX.
PICTURE XXX.
PICTURE X.
PICTURE XE83.
PICTURE 999.
41120
41130
                                                                                                                           C98970
41140
41150
                                                                                                                          C98970
                 02 SER-NO-TYPE-4
                                                                                                                          C98970
41160
                                                                                                                          C98970
                  02 DATA-TYPE-4.
                                                                                                                          C98970
41180
                        03 WUC-TYPE-4
                                                                PICTURE XESJ.
                                                                                                                          C98970
                        03 WDC-TYPE-4
                                                                PICTURE X. PICTURE XXX.
41230
                 03 WDC-TYPE-4
03 HMC-TYPE-4
03 UNITS-TYPE-4
03 MHRS-TYPF4
02 FILLER
02 REJ-IO-TYPE-4
02 FI'LER
1281 E-3 E-4
41250
                                                                                                                          C98970
41260
                                                                PICTURE 5999
                                                                                                                          C98970
                                                                PICTURE S9999
PICTURE X(16)
41270
                                                                                                                          C98970
                                                                                          VALUE SPACE.
VALUE 4.
VALUE SPACE.
41280
                                                                                                                          C98970
41290
                                                                PIC TURE
                                                                                                                          C98970
41300
                                                                PICTURE X
                                                                                                                          C98970
                  02 FILLER
TABLE-3 SYNC.
02 TABLE-3-ROW OCCURS 250 TIMES.
03 TABLE-3-WUC PICTU
03 TABLE-3-DATAA.
           01
42000
                                                                                                                          C98970
42410
                                                                                                                          C98970
                                                                PICTURE XEST.
42020
                                                                                                                          C98970
42030
                                                                                                                          C98970
                               04 TABLE-3-UNITS
04 TABLE-3-LABOR
                                                                PICTURE 5999.
PICTURE 5999.
PICTURE 5999.
421140
                                                                                                                          C98970
42050
                                                                                                                          C98970
42070
                                      TABLE-3-ATE
                                                                                                                          C98970
```

C98970

30930

```
42080
                                         TABLE-3-NORM
                                                                     PICTURE S9999.
PICTURE S9999.
                                                                                                                                    C98970
                                                                                                                                    C98970
 42130
                                          TABLE-3-UNITS-ATC
                                                                      PICTURE S999.
 42140
                                                                                                                                    C98970
                    TABLE-4 SYNC.
                                                                                                                                    C98970
 42210
                    02
                           TAHLE-4-ROW OCCURS 250 TIMES,
                                                                                                                                    C98970
                   02 TABLE-4-ROW OCCURS 250
03 TABLE-4-WDC
03 TABLE-4-HMC
03 TABLE-4-HMC
03 TABLE-4-HMRS
DATA-IN-A SYNC,
05 MIN-SCHEDINGS
                                                                     PICTURE XEST.
 42220
                                                                                                                                    C98970
                                                                     PICTURE XXX.
PICTURE XXX.
PICTURE S999.
 42230
 42250
                                                                                                                                    C98970
 42260
                                                                                                                                    C98970
42270
43000
                                                                     PICTURE S9999.
                                                                                                                                    C98970
             01
                                                                                                                                    C98970
                    05
05
                         WUC-SCHED-INSP
FILLER
 43010
                                                                     PICTURE XX.
                                                                                                                                    C98970
 43020
                                                                     PICTURE XXX.
                                                                                                                                    C98970
 43030
                          WUC-SPEC-INSP
                                                                     PICTURE XX.
                                                                                                                                    C98970
                                                                     PICTURE XXX.
PICTURE XCAJ.
 43040
                    05
                                                                                                                                    C98970
 43050
                    05
                           FIRST-A-C
                                                                                                                                   C98970
43060
                           FILLER
FI"ST-WEEK
                                                                     PICTURE XX.
                    05
                                                                                                                                    C98970
                                                                     PICTURE 9053.
                    05
                                                                                                                                    C98970
 43080
                           LAST-WEEK
                                                                                                                                    C98970
                          FILLER
MIJSION-IN
OESIGN-IN
NO-AC-TO-PROC
                                                                     PICTURE X.
 43090
                    05
                                                                                                                                    C98970
                                                                      PICTURE X.
 43100
                    05
                                                                                                                                    C98970
 43110
                                                                      PICTURE XXX
                                                                     PICTURE 9053.
PICTURE XC403.
 43120
                    05
                                                                                                                                   C98970
                   05 NO-AC-TO-PRO
05 FILLER
DATA-I'-B SYNC.
05 NUW-ATC
05 FILLER
04TA-I'-C SYNC.
05 X-100E
05 FILLER
                                                                                                                                   C98970
             01
 43200
                                                                                                                                    C98970
 43210
                                                                     PICTURE 999.
                                                                                                                                   C98970
 43220
                                                                     PICTURE XE 77 3.
                                                                                                                                    C98970
 43300
             01
                                                                                                                                    C98970
                                                                     PICTURE X.
PICTURE X[79].
 43310
                                                                                                                                    C96970
43320
43400
43410
                                                                                                                                   C98970
                   OATA-IH-D SYNC.

05 NUT-NCODES

05 NUM-NORM

05 FILLER
             01
                                                                                                                                    C98970
                                                                     PICTURE 999.
PICTURE 999.
                                                                                                                                    C98970
43420
                                                                     PICTURE XE743.
                                                                                                                                   C98970
                    OATA-I.I-E SYNC.
05 NU'4-ENG-WUC
05 FILLER
 43500
                                                                     PICTURE 999.
PICTURE XC773.
43510
                                                                                                                                    C98970
 43520
                                                                                                                                   C98970
43600
             01
                    OATA-IN-F SYNC.
                                                                                                                                    C98970
                   05 EN :-WUC-IN
05 FILLER
DATA-IN-G SYNC
                                                                     PICTURE XXX.
PICTURE XE773.
                                                                                                                                   C98970
 43620
                                                                                                                                    C98970
43700
            01
                                                                                                                                   C98970
43710
                    05
                          HUH-WUC-GROUPS
                                                                     PICTURE 999.
                                                                                                                                   C98970
43720
                          FILLER
                                                                     PICTURE XXX.
                   05
                                                                                                                                   C98970
                                                                    PICTURE 9999.
PICTURE XE703.
43730
                          MAX-NUM-WUC
                                                                                                                                   C98970
43740
                          FILLER
DATA-IN-H SYNC.
                   05
                                                                                                                                   C98970
            01
                                                                                                                                   C98970
43810
                           WUC-2DIG-IN
                                                                     PICTURE XX.
                                                                                                                                    C98970
                          FILLER
                                                                    PICTURE XXX.
PICTURE 9053.
43820
                   05
                                                                                                                                   C98970
                          FILLER
FI. ST-POSITION
LA' 1-POSITION
FILLER
FILLER SYNC.
43830
                                                                                                                                   C98970
                   05
43640
                                                                     PICTURE 9[5]
                                                                                                                                    C98970
43450
                   05
                                                                     PICTURE XC65 J.
                                                                                                                                   C98970
43900
                                                                                                                                   C98970
43910
50000
            PROCEOURE PIVISION.
                                                                    PICTURE X OCCURS 5 TIMES.
                                                                                                                                   C98970
                                                                                                                                   C98970
            OPEN IGPUT IN-FILE-65-I10. IN-FILE-IRAN. IN-FILE-AIE.
50010
                                                                                                                                   C98970
50020
                                                                                                                                   C98970
                   OPEN IN-FILE-BO-I, IN-FILE-WUC.

OPEN ONITPUT OUT-FILE.

OPEN INPUT OATA-IN-FILE.

MOVL ZLRO TO NO-A-C-PROC.

MOVL ZLRO TO IRAN-FLAG.

PERFORM READ-OATA-IN-FILE THRU END-RDIF.
50030
                                                                                                                                   C98970
50040
                                                                                                                                   C98970
50045
                                                                                                                                   C98970
50050
                                                                                                                                   C98970
                                                                                                                                   C98970
C98970
50060
50065
                   NOTE HEAD LIST OF WORK-UNIT-CODES.

NOTE HEAD LIST OF WORK-UNIT-CODES.

PERFOR! READ-WUC-LIST THRU END-READ-WUC-LIST.

CLOSE 'N-FILE-WUC WITH LOCK.

NOTE FIND LOWEST SERIAL NUMBER AND WEEK FOR IMPUT DATA
50070
                                                                                                                                    C98970
50080
                                                                                                                                   C98970
50085
                                                                                                                                   C98970
50090
                                                                                                                                   C98970
50100
                          FILLS.
                                                                                                                                   C98970
                   PEPFOR" INIT-SN-WK THRU ENG-INIT-SN-WK.
NOTE FIND FILE WITH LOWEST SERIAL NUMBER-WEEK.
50110
50120
                                                                                                                                   C98970
C98970
50130
           PERFORM ST-SN-WK THRU ENO-ST-SN-WK.

NEW-SEP-NO.

MOVE F'LE-LOW-DATA TO FILE-NO.

MOVE SER-NO [FILE-NO] TO CUR-S-N.

MOVE WEEK-NO [FILE-NO] TO CUR-WEEK.

MOVE VELK-NO TO SAVAILABLE.

MOVE VELK-NO EQUAL TO VERO.

MOVE VELK-NO TO SAVAILABLE.

MOVE VELK-NO TO MON-WEEK-PROC.

IF DATA-AVAIL-CODE EQUAL TO ZERO GO TO SN-WEEK-DONE.

NOTE PROCESS ONE SERIAL NUMBER-WEEK.
                   PERFORM ST-SH-WK THRU ENO-ST-SN-WK.
                                                                                                                                   C98970
50140
                                                                                                                                   C98970
50150
                                                                                                                                   C98970
50160
                                                                                                                                   C98970
50170
                                                                                                                                   C98970
50180
                                                                                                                                   C98970
50190
                                                                                                                                   C98970
50200
                                                                                                                                   C98970
50210
                                                                                                                                   C98970
                                                                                                                                   C98970
50430
                                                                                                                                   C98970
50240
                                                                                                                                   C98970
50250
50260
50270
                                                                                                                                    C98970
                                                                                                                                   C98970
50280
                                                                                                                                   C98970
            NEXT-WELK.
50290
```

```
50301
                     IF DATF-WEEK-2 IS NOT EQUAL TO ZERO PERFORM RESET-IRAN
                                                                                                                                          C98970
                     THRU END-RESET.

IF DATA-WEEK-3 IS NOT EQUAL TO ZERO PERFORM RESET-ALE
THRU END-RESET.
 50302
                                                                                                                                           C98970
 50303
                                                                                                                                           C98970
                                                                                                                                           C98970
                    IF DATA-WEEK-4 IS NOT EQUAL TO ZERO PERFORM RESET-66-1 .

THRU END-RESET.

IF DATA-WEEK-1 IS NOT EQUAL TO ZERO PERFORM RESET-68-110 THRU END-RESET.

IF DATA-WEEK-2 NOT EQUAL TO ZERO PERFORM RESET-68-110 DATA-WEEK-2 NOT EQUAL TO ZERO
 50305
                                                                                                                                           C98970
 50306
 50307
                                                                                                                                           C98970
 50308
                                                                                                                                           C98970
 50309
                    IF DATA-WEEK-2 NOT EQUAL TO ZERO
PENFORM SN-WK-IRAN THRU END-SN-WK-IRAN.

IF DAT-WEEK-3 NOT EQUAL TO ZERO
PERFORM SN-WK-AIE THRU END-SN-WK-AIE.

IF DATA-WEEK-4 NOT EQUAL TO ZERO
PENFORM SN-WK-66-1 THRU END-SN-WK-66-1.

IF DATA-WEEK-1 NOT EQUAL TO ZERO
PERFORM SN-WK-65-110 THRU END-SN-WK-65-110.
                                                                                                                                          C98970
50310
                                                                                                                                          C98970
 50320
                                                                                                                                          C98970
50330
                                                                                                                                          C98970
                                                                                                                                          C98970
 50350
                                                                                                                                          £98970
50360
 50370
                                                                                                                                          C98970
50380
             SN-WEEK-DO L.
                                                                                                                                          C98970
                    MEEK-OGIL.

PERFOR' WRITE-BANK THRU END-WRITE-BANK.

ADD ONE TO CUR-WEEK.

IF LUN-WEEK GREATER THAN LAST-WEEK

GO 10 SERIAL-NO-DONE.

IF IRAN-FLAG EQUAL TO ZERO

GO 10 WEEK-NESET.

COMPUIL WEEK-NO-COMP > LEND-IRAN-DAY < 33 / 7 < 1.

IF LUN-WEEK GREATER THAN WEEK-NO-COMP

MOVE ZERO TO IRAN-FLAG.
50390
                                                                                                                                          C98970
 50400
                                                                                                                                          C98970
50410
                                                                                                                                          C98970
 50420
                                                                                                                                          C98970
C98970
50430
50440
                                                                                                                                          COASTO
                                                                                                                                          C98970
 50460
                                                                                                                                          C98970
50470
                                                                                                                                          C98970
            WEEK-RESET.

PERFORM RESET-WEEK THRU END-RESET.

PERFORM DATA-AVAIL THRU END-DATA-AVAIL.

IF UATA-AVAIL-CUDE EQUAL TO ZERO

GO TO SN-WELK-DONE.

GO TO LIXI-WEEK.
50480
                                                                                                                                          C98970
50490
                                                                                                                                          C98970
50500
                                                                                                                                          C98970
50510
                                                                                                                                          C98970
50520
                                                                                                                                          C98970
50530
                                                                                                                                          C98970
50540
50550
             SERIAL-NO-DONE
                                                                                                                                          C98970
                    PERFORM RESET-SER-NO THRU END-RESET.
                                                                                                                                          C98970
                    MOVE ZLHO TO IRAN-FLAG.
ADD ONF TO NO-A-C-PROC.
IF NO-A-C-PROC IS NOT LESS THAN NO-AC-TO-PROC.
GO TO BLOCK-CHECK.
NOTE CHECK IF ALL FILES HAVE EOF.
50555
50560
                                                                                                                                          C98970
                                                                                                                                          C98970
50580
                                                                                                                                          C98970
50590
                                                                                                                                          C98970
                    PERFORM FILES-EOF THRU END-FILES-EOF.

IF ALL-LOF NOT EQUAL TO ZERO
50600
50610
                                                                                                                                          C98970
                            GO TO NEW-SER-NO.
                                                                                                                                          C98970
50620
50630
                    NOTE
                                   AIRCRAFI SERIAL NUMBERS PROCESSING COMPLETED.
                                                                                                                                          C98970
             BLOCK-CHECK .
50640
                                                                                                                                          C98970
                    COMPUTE KNT > RECORDS-PASS - RECORDS-PASS / R-B + R-B.

IF KNT EQUAL TO ZERO

GO TO CLOSE-FILES.
                                                                                                                                           C98970
50650
50660
                                                                                                                                          C98970
50070
                                                                                                                                          C98970
            NINE-FILL.
50680
                                                                                                                                          C98970
                     WRITE OUT-REC FROM NINES.
                                                                                                                                          C98970
50690
                    ADD ON! TO KNT.

IF KNT IS LESS THAN R-B GO TO NINE-FILL.
50 700
                                                                                                                                          C98970
                                                                                                                                          C98970
50710
            CLUSE-FILES.
50720
                                                                                                                                          C98970
                    CLOSE SHEFILE-65-110 WITH LOCK.
THEFILE-IRAN WITH LOCK.
THEFILE-AIE WITH LOCK.
50730
                                                                                                                                          C98970
50740
                                                                                                                                          C98970
50750
                                                                                                                                          C98970
                               IN-FILE-60-I
50/60
                                                           WITH LOCK
                                                                                                                                          C98970
                                                                                                                                          C98970
50780
                                                           WITH LOCK.
                    CLOSE DATA-IN-FILE WITH LOCK.
50781
            MESSAGES.
DISPLAY : SER-NO : CUR-S-N I WEEK I CUR-WEEK UPON CONSOLE.
DISPLAY : RECORDS WRITTEN IN DATA BANK : RECORDS-PASS
50790
50791
                                                                                                                                          CG8970
                                                                                                                                          C98970
50800
                                                                                                                                          C98970
                                                                                                                                          C98970
50810
                    DISPLAY: NUMBER A/C PROCESSED I NO-A-C-PROC
UPON CONSOLE.
DISPLAY: 1 MAX TAB 3: MAX-TAB-3: MAX TAB 4: MAX-TAB-4: UPON CONSOLE.
DISPLAY: EOJ C9897: UPON CONSOLE.
50820
                                                                                                                                          C98970
                                                                                                                                          C98970
50830
                                                                                                                                          C98970
50831
50832
                                                                                                                                          C98970
                                                                                                                                          C98970
50835
                     GOBACK
                                                                                                                                          C98970
50840
             CHECK-IN-IPAN.
                                                                                                                                          C98970
69000
                    MOVE ZERO TO IN-IRAN.

IF IRAN-FLAG IS EQUAL TO ZERO GO TO END-CHECK-IN-IRAN.

IF JDAY LESS THAN START-IRAN-DAY GO TO END-CHECK-IN-IRAN.

IF JDAY GREATER THAN END-IRAN-DAY GO TO END-CHECK-IN-IRAN.
69020
                                                                                                                                           C98970
69030
                                                                                                                                           C98970
69040
                                                                                                                                          C98970
                    MOVE ONE TO IN-IRAN.
69060
                                                                                                                                          C98970
            END-CHECK- N-IRAN.
69070
                                                                                                                                          C98970
69480
                    EXIT.
                                                                                                                                          C98970
            PROC-WUL.
MOVE ZERO TO WUL-TYPE.
70000
70010
                                                                                                                                          C98970
                    IF WUC-1EMP IS EQUAL TO SPACE THEN GO TO END-PROC-WUC. IF WUC-MJR IS GREATER THAN WUC-09 GO TO PROC-WUC-NSG. IF WUC-MJR IS EQUAL TO WUC-SCHED-INSP GO TO
70020
                                                                                                                                          C98970
70030
                                                                                                                                          C98970
70040
                                                                                                                                          C98970
            PROC-WUC-SCHED-INSP GO TO

PROC-WUC-ACCPT-SG.

IF WUC-MJR IS EWUAL TO WUC-SPEC-INSP GO TO PROC-WUC-ACCPT-SG.

GO TO END-PROC-WUC.

PROC-WUC-ACCPT-SG.

MOVE I TO WUC-TTPE.

GO TO END-PROC-WUC.
                                                                                                                                          C98970
70050
70060
                                                                                                                                          C98970
70070
                                                                                                                                          C98970
70100
                                                                                                                                          C98970
                                                                                                                                          C98970
70110
                                                                                                                                          C98970
```

```
PROC-WUC-NSG.
70200
                                                                                                                     C98970
                 IF POS-TABLE-3 IS EQUAL TO ZERO GO TO PROC-WUC-3. MOVE I TO KNT.
70210
70220
                                                                                                                     C98970
70230
70240
          PHUC-WUL-4.
                 IF WUL-TEMP IS EQUAL TO TABLE-3-WUC [KNT] THEN GO TO PROC-WUC-ACCPT-NSG.
                                                                                                                     C98970
70250
                                                                                                                     C98970
                 ADD 1 TO KNY. IF KNY IS GREATER THAN POS-TABLE-3 THEN GO*TO PROC-WUC-3. GO TO \rm f.<0c-wuc-4.
70260
                                                                                                                     C98970
70270
                                                                                                                     C98970
70280
                                                                                                                     C98970
70300
           PROC-WUC-S.
                                                                                                                     C98970
                 IF POS-TABLE-4 IS EQUAL TO ZERO GO TO PROC-WUC-ENGS.
70510
                                                                                                                     C98970
70.520
          MOVE 1 TO KNT.
PROC-WUL-6.
                                                                                                                     COROTO
70330
                                                                                                                     C98970
                 IF WUC-TEMP IS LOUAL TO TABLE-4-WUC CENTS THEN GO TO
70340
                                                                                                                     C98970
70350
                                                PROC-WUC-ACCPT-NSG.
                                                                                                                     C98970
70360
70370
                 ADD 1 10 KNT. 15 GHEATER THAN POS-TABLE-4 THEN GO TO PROC-WUC-ENGS. GO TO PHOC-WUC-6.
                                                                                                                     C98970
                                                                                                                     C98970
70380
                                                                                                                     C98970
70400
          PRUC-WUL-LNGS.
MOVE 1 TO KNT.
                                                                                                                     COROTO
           PROC-WUC-7
                                                                                                                     C98970
                 IF WUL-3-DIG IS EQUAL TO ENGINE-WUC [KNT] THEN GO TO
70430
                                                                                                                     C98970
                                                PROC-WUC-ACCPT-ENGS.
                                                                                                                     C98970
                 ADD 1 O KNT.

IF KNT 15 GHEATER THAN NUM-ENG-WUC GO TO PROC-WUC-MUR.

GO TO PHOC-WUC-7.
70450
                                                                                                                     C98970
70460
                                                                                                                     CQ8970
70470
                                                                                                                     C98970
          PROC-WUC-ALLPT-ENGS.

MOVE SPACE TO WUC-2-DIG.

PROC-WUC-ACUPT-NSG.

MOVE 2 10 WUC-TYPE.
70500
                                                                                                                      C98970
70510
                                                                                                                     C98970
70520
                                                                                                                     C98970
70530
                                                                                                                     C98970
70540
                 GO TO LND-PROC-WUC.
                                                                                                                     C98970
70600
          PROC-WUC-M. H. MOVE 1 10 KNA.
                                                                                                                      C98970
70610
                                                                                                                     C98970
           PRUC-WUL-8.
70620
                                                                                                                     C98970
                 IF WUC-MUR IS EQUAL TO WUC-POS-TYPE [KNA] GO TO PROC-WUC-MIN, ADD 1 TO KNA.
                                                                                                                     C98970
70630
                                                                                                                     C98970
70650
                 IF KNA IS OREATER THAN MUM-WUC-GROUPS GO TO END-PROC-WUC.
GO TO PHOC-WUC-8.
                                                                                                                     C98970
70660
                                                                                                                     C98970
70700
           PROC-WUC-M_N.
                                                                                                                     C98970
70710
                 MOVE WIC-POS-START ERNAL TO KNT.
                                                                                                                     C98970
          MOVE MUC-POS-END [KNA] TO KNB.
70720
                                                                                                                     C98970
                                                                                                                     C98970
70800
                 IF WUC- TEMP IS EQUAL TO LIST-WUC [KNT] 60 TO PROL-WUC-ACCPT-NSG.
70010
                                                                                                                     C98970
70820
                                                                                                                     CQ8970
                 ADD 1 TO KNT.

IF KNT 15 GHEATER THAN KNB GO TO END-PROC-WUC.

GO TO PROC-WUC-9.
70830
                                                                                                                     C98970
70880
                                                                                                                     C98970
70850
                                                                                                                     C98970
           END-PROC-WUC. EXIT.
70900
                                                                                                                     C98970
72000
72010
           PHOC-65-11J.
                                                                                                                     COASTO
                 MOVE J -DAY-65-110 TO JDAY.
                                                                                                                     C98970
                 PERFORM CHECK-IN-IRAN THRU END-CHECK-IN-IRAN.

IF IN-1KAN 1S EWUAL TO 1 GO TO END-PROC-65-110.

IF HEC ID-65-110 IS EQUAL TO :2: GO TO PROC-65-110-A.

IF HEC-ID-65-110 IS GREATER THAN :2: GO TO PROC-65-110-B.

GO TO FID-PROC-65-110.
72020
                                                                                                                      C98970
72030
                                                                                                                     C98970
72040
                                                                                                                     C98970
                                                                                                                     C98970
72050
72060
                                                                                                                     C98970
           PROC-65-110-8.
72070
                                                                                                                     C98970
                 IF HEC: 1D-65-11U IS GREATER THAN 191 GO TO END-PROC-65-110.

NOTE "EC-ID-65-110 HAS VALUE 3 TO 9 AT THIS POINT.

ADD TIML-65-110 TO FLT-TIME-TYPE-1.

MOVE 1: TO REC-65-110-TYPE-1-ONLY.

ADD SORIIES-65-110 TO SORTIES-TYPE-1.

ADD LA"DINGS-65-110 TO LANDINGS-TYPE-1.

IF SERIES-TYPE-1 IS EQUAL TO SPACE THEN MOVE SERIES-68-110

TO SERIES-TYPE-1.

GO TO "HO-PROC-65-110.
                                                                                                                     C98970
72080
72490
                                                                                                                     C98970
72100
                                                                                                                      C98970
72105
72110
                                                                                                                     COROTA
                                                                                                                     C98970
72120
72130
                                                                                                                     C98970
                                                                                                                     C98970
72140
72150
                                                                                                                      C98970
                 GO TO "HD-PHOC-65-110.
                                                                                                                     C98970
72200
           PROC-65-110-A.
                 MOVE WILE-65-110 TO WUC-TEMP.
PERFOR! PROC-WUC THRU END-PROC-WUC.
                                                                                                                     C98970
72420
72230
                 HOVE 1 10 KNT.

IF POS-TABLE-3 EOUAL TO ZERO GO TO END-PROC-65-110.

MOVE 1: TO REC-65-110-TYPE-1-0NLY.

MOVE 1 10 KNT.

IF POS-TABLE-3 EOUAL TO ZERO GO TO PROC-65-110-E.
72240
72245
72250
                                                                                                                     COAGTO
                                                                                                                     C98970
                                                                                                                      C98970
72260
                                                                                                                     C98970
72270
           PROC-65-110-C.
                 IF WUC-IEMP IS EQUAL TO TABLE-3-WUC TENT THEN GO TO PROC-65-110-D.
72280
                                                                                                                     COAGTO
                                                                                                                     C98970
72290
72300
                 ADD 1 TO KNT.

1F KNT 1S GREATER THAN POS-TABLE-3 00 TO PROC-65-110-E.

GO TO PHOC-65-110-C.
                                                                                                                     C98970
C98970
72310
72320
                                                                                                                     C98970
72400
           PHOC-65-11)-E.
                                                                                                                      C98970
72410
                 MOVE N'IL TO POS-TABLE-3.

IF POS-TABLE-3 IS GREATER THAN MAX-TAB-3 MOVE POS-TABLE-3.
                                                                                                                     C98970
                                                                                                                     C98970
                 TO MAX-TABLE-3

TO MAX-TAB-3.

IF POS-TABLE-3 IS GREATER THAN TABLE-SIZE 60 TO PROS-65-ERR.

MOVE MULTEMP TO TABLE-3-MUC CKNT3.

IF SERIES-TYPE-3 IS EQUAL TO SPACE THEN MOVE SERIES-65-110

TO SERIES-TYPE-3.
                                                                                                                     C98970
 72415
72420
 72430
                                                                                                                      C98970
72440
                                                                                                                      CQ8970
72450
                                                                                                                     C98970
```

```
72500
         PHOC-65-111-D.
                                                                                                                C98970
                HOVE 1 TO KNA.
72510
                                                                                                                C98970
         PROL-65-110-F.
                IF MAI IT-COOE-65-110 IS EQUAL TO NOR-CODE [KNA] GO TO
72530
                                                                                                                C98970
72540
                                              PROC-65-110-0.
                                                                                                                C98970
72550
                                                                                                                C98970
72560
                IF KNA IS GREATER THAN NUM-NCODES GO TO END-PROC-65-110. GO TO PHOC-65-110-F.
                                                                                                                C98970
72570
                                                                                                                C98970
          PHOC-65-110-6.
72600
                                                                                                                C98970
                IF KNA IS NOT OREATER THAN NUM-NORM THEN ADD TIME-65-110 TO
72010
                                                                                                                C98970
                TABLE-3-NORM [KNT].

IF KNA 15 GREATER THAN NUM-NORM THEN ADD TIME-65-110 TO
72620
                                                                                                                COROZA
72030
                                                                                                                C98970
72640
                                              TABLE-3-NORS [KNT].
                                                                                                                C98970
                GO TO END-PROC-65-110.
72690
                                                                                                                C98970
          PROC-65-ER ?. DISPLAY : TABLE SIZE EXCEEDED IN TABLE-3 I UPON CONSOLE.
72600
                                                                                                                C98970
72810
                                                                                                                C98970
72820
                GO TO CLOSE-FILES.
                                                                                                                C98970
72900
73000
          ENO-PROL - 15-110. EXIT.
                                                                                                                 C98970
          PROC-IRAN.
                                                                                                                C98970
                - IRAN.

MOVE IRAN-VIS-NO TO IRAN-VIS-NO-TYPE-2.

MOVE IRAN-CODE TO IRAN-CODE-TYPE-2.

MOVE IRAN-START-DAY TO IRAN-START-DAY-TYPE-2.

MOVE IRAN-START-DAY TO START-IRAN-DAY.

IF IRAN-END-DAY IS EQUAL TO ZERO THEN MOVE 9999 TO

IRAN-END-DAY.

MOVE IRAN-END-OAY TO IRAN-END-DAY-TYPE-2.

MOVE IRAN-END-OAY TO END-IRAN-DAY.

MOVE IRAN-END-OAY TO END-IRAN-DAY.
73010
                                                                                                                C98970
73020
                                                                                                                C98970
73030
                                                                                                                C98970
73040
73050
                                                                                                                C98970
73060
                                                                                                                C98970
73070
                                                                                                                 C98970
73080
                                                                                                                C98970
                MOVE 1 TO TRAN-FLAG. IF SENTEN HOVE SERIES-TRAN
73090
                                                                                                                 C98970
73100
                                                                                                                C98970
                                               TO SERIES-TYPE-2.
                                                                                                                C98970
73900
          ENU-PROC-IRAN. EXIT.
                                                                                                                C98970
74000
          PROC-AIL.
                                                                                                                C98970
                PERFORM PROC-WUC THRU END-ROC-WUC.
74010
                                                                                                                 C98970
74020
                                                                                                                C98970
74030
                                                                                                                C98970
74040
                                                                                                                 C98970
74050
                                                                                                                C98970
                 IF MUC-TYPE IS EQUAL TO ZERO GO TO END-PROC-AIE.
74060
                MOVE : 10 KNT.
IF POS-TABLE-3 IS EQUAL TO ZERO GO TO PROC-ALE-A.
74100
                                                                                                                C98970
                                                                                                                C98970
74120
          PROC-AIF-B.
                                                                                                                C98970
74130
                IF WUC-TEMP IS EQUAL TO TABLE-3-WUC EKNT THEN GO TO
                                                                                                                C98970
74140
                                              PROC-AIE-C.
                                                                                                                C98970
74150
                AOD I TO KHT.
                                                                                                                C98970
                IF KNT IS GREATER THAN POS-TABLE-3 GO TO PROC-AIE-A. GO TO PROC-AIE-U.
74160
                                                                                                                C98970
74170
                                                                                                                C98970
74200
         PRUC-ATE-A.
MOVE MIT TO POS-TABLE-3.
                                                                                                                C98970
74210
                                                                                                                C98970
                IF POS-TABLE-3 IS GREATER THAN MAX-TAB-3 HOVE POS-TABLE-3
74214
                                                                                                                C98970
                TO MAX-TAB-3.

IF POC-TABLE-3 IS GREATER THAN TABLE-SIZE GO TO PROC-AIE-ERR.
74215
74220
                                                                                                                C98970
                MOVE WUL-TEMP TO TABLE-3-WUC IKNT ].
74230
                                                                                                                C98970
74300
         PROC-AIL-C.
ADD I TO TABLE-3-AIE [KNT].
                                                                                                                C98970
74310
                                                                                                                C98970
                GO TO LIND-PROC-AIE.
74320
                                                                                                                C98970
          PROC-AIE-EAR.
OISPLAY: TABLE-SIZE EXCEEDED IN TABLE-3 1 UPON CONSOLE.
GO TO CLOSE-FILES.
74910
                                                                                                                C98970
                                                                                                                C98970
74930
                                                                                                                C98970
74990
          END-PROC-AIL.
                                                                                                                C98970
75000
75010
          PROC-66-1.
                                                                                                                 98970
                MOVE -- UAY-66-1 TO JDAY.
                                                                                                                C98970
                MOVE L-UAY-66-1 TO JDAY.

PERFOPM CHECK-IN-IRAN THRU END-CHECK-IN-IRAN.

IF IN-IRAN IS EQUAL TO 1 GO TO END-PROC-66-1.

MOVE WUC-66-1 TO WUC-TEMP.

PERFORM PROC-WUC THRU END-PROC-WUC.

IF WUC-IYPE IS EQUAL TO 1 GO TO PROC-66-1-0.

IF WUC-IYPE IS NOT EQUAL TO 2 GO TO END-PROC-66-1.

MOVE TO KNT.

IF POT-IABLE-4 IS EQUAL TO ZERO GO TO PROC-66-1-0.
75020
                                                                                                                C98970
75030
                                                                                                                C98970
75040
                                                                                                                C98970
75050
                                                                                                                C98970
75060
                                                                                                                C98970
75070
                                                                                                                C98970
75100
                                                                                                                C98970
75110
                                                                                                                C98970
          PROC-66-1-H.
75120
                   WUL-TEMP IS EQUAL TO TABLE-4-WUC IKNT AND WDC-66-1 IS
EQUAL TO TABLE-4-WDC [KNT] AND TABLE-4-HMC [KNT] IS
FOUAL TO HMC-66-1 THEN GO TO PROC-66-1-HMC.
                                                                                                                C98970
75140
                                                                                                                C98970
C989T0
75145
                AOD 1 TO KNY.

IF KN. 15 GPEATER THAN POS-TABLE-4 GO TO PROC-66-1-D.

GO TO PHOC-66-1-B.
75150
                                                                                                                C98970
75160
75170
                                                                                                                C98970
C98970
75200
         PHOC-66-1-0.
                -66-1-0.

MOVE .NT TO POS-TABLE-4.

IF POS-TABLE-4 IS GREATER THAN MAX-TAB-4 HOVE POS-TABLE-4

TO MAX-TAB-4.

TO MAX-TAB-4.
                                                                                                                C98970
75210
                                                                                                                C98970
75215
                                                                                                                C98970
75216
                                                                                                                C98970
                                                                                                                C98970
                                              PROC-66-1-ERR-1.
75230
                                                                                                                C98970
               MOVE WUC-TEMP TO TABLE-4-WUC EKNT].

MOVE WUC-TEMP TO TABLE-4-WUC EKNT].

MOVE WUC-66-1 TO TABLE-4-WHC EKNT].

MOVE WUC-66-1 TO TABLE-4-HNC EKNT].

IF SF !LES-TYPE-4 IS EQUAL TO SPACE MOVE SERIES-66-1 TO
75240
                                                                                                                C98970
75250
                                                                                                                C98970
75255
                                                                                                                C98970
                                                                                                                C98970
75270
                                              SERIES-TYPE-4.
                                                                                                                C98970
```

```
C98970
75440 PROC-66-1-HMC.
                    ADD U.ITS-66-I TO TABLE-4-UNITS CKNTJ.
ADD LABOR-66-I TO TABLE-4-MHRS CKNTJ.
T5450
                                                                                                                                        C98970
T5460
                                                                                                                                        C98970
            PROC-66-1-G.
MOVE 1 TO KNT.
IF PO.-TAHLE-3 IS EQUAL TO ZERO GO TO PROC-66-1-H.
 75500
75510
                                                                                                                                        C08970
                                                                                                                                        C98970
75520
 15530
            PROC-66-1-J.
                    IF MUC-TEMP IS EQUAL TO TABLE-3-WUC [KNT] GO TO PROC-66-1-K.
75540
                                                                                                                                        COROTO
                    IP MUCTED 13 AUDIT 15 AUDIT 15 AUDIT 17 TO KNT. IF KN' 15 GREATER THAN POS-TABLE-3 GO TO PROC-66-I-N. GO TO PROC-66-I-J.
75550
                                                                                                                                        C98970
 15560
75570
                                                                                                                                        C98970
            PROC-66-1-44.

MOVE ..NI TO POS-TABLE-3.

IF POS-TABLE-3 IS GREATER THAN MAX-TAB-3 MOVE POS-TABLE-3.
T5600
                                                                                                                                        C989T0
T5610
                                                                                                                                        C98970
                                                                                                                                        C98970
T5614
                   TO MAX-TAB-3.

IF POS-IABLE-3 IS GHEATER THAN TABLE-SIZE 60 TO
75620
                                                                                                                                        C98970
                   IF POS-IABLE-3 IS GREATER THAN TABLE-SIZE OU TO PROC-66-I-ERR-3.

MOVE MUCHTEMP TO TABLE-3-MUC CKNT J.

IF SERIES-TYPE-3 IS EQUAL TO SPACE THEN MOVE SERIES-66-1

TO SERIES-TYPE-3.
 T5630
                                                                                                                                        C98970
75640
                                                                                                                                        C98970
                                                                                                                                        C98970
T5650
75700
            PROC-66-1 -K
                                                                                                                                        C98970
            PROC-66-1 * A.

ADD UNITS-66-1 TO TABLE-3-UNITS [KNT].

AOD LABUH-66-1 TO TABLE-3-LABOR [KNT].

MOVE LEHO TO ATC-INDEX.

PRUC-66-1 * K-L.

ADD I TU ATC-INDEX.

IF ATC-U6-1 IS EQUAL TO LIST-ATC [ATC-INDEX]

GO TO PROC-66-1-L.

IF ATC-INDEX IS LESS THAN NUM-ATC GO TO PROC-66-I-K-L.
                                                                                                                                        C989T0
T5710
75 720
15 730
                                                                                                                                        C98970
                                                                                                                                        COROTO
 75735
75740
                                                                                                                                        C98970
75745
75750
                                                                                                                                        C98970
75760
                    GO TO END-PHOC-66-1.
                                                                                                                                        COAOTO
            PROC-66-1- L.
75770
                                                                                                                                        C98970
            PROC-66-I-L.

ADD U IIIS-66-I TO TARLE-3-UNITS-ATC [KNT].

GO TO EHD-PROC-66-I.

PROC-66-I-LHR-1.

DISPL.Y: TARLE-SIZE EXCEEDED IN TABLE 4: UPON CONSOLE.

GO TO CLOSE-FILES.

PROC-66-I-EHR-3.

DISPLAY: TABLE-SIZE EXCEEDED IN TABLE 3: UPON CONSOLE.
75 790
                                                                                                                                        COAGTO
T5900
75910
                                                                                                                                        COASTO
75920
                                                                                                                                        C98970
75470
                                                                                                                                        COBSTO
 75980
                    GO TC CLOSE-FILES.
            END-PROC-50-1. EXIT.

READ-65-110.

IF FILL-DATA-1 IS EQUAL TO ZERO, GO TO END-READ-65-110.

READ 1N-FILE-65-110. AT END GO TO READ-65-110-A.

IF SEK-NO-65-110 EQUAL TO EOF-S-N GO TO READ-65-110-A.
15990
76000
                                                                                                                                        C98970
76010
                                                                                                                                        C94970
 76020
 76030
                                                                                                                                        C08970
76040
                    GO TO END-READ-65-110.
                                                                                                                                        C98970
            READ-65-110-A.
MOVE ZERO TO FILE-DATA [1].
                                                                                                                                        C98970
76450
                                                                                                                                         C98970
           IF FILE-DATA-2 IS EQUAL TO ZERO. GO TO END-READ-IRAN.
READ IN-FILE-IRAN. AT END GO TO READ-IRAN-A.
IF 5FR-NO-IRAN EQUAL TO EOF-S-N GO TO READ-IRAN-A.
GO TO END-READ-IRAN.
READ-IRAN-A.
MOUNT AND A.
                                                                                                                                        C989T0
76470
76100
                                                                                                                                        C989T0
 76110
                                                                                                                                        C98970
                                                                                                                                        C98970
TA120
T6130
76140
                                                                                                                                        C98970
                                                                                                                                        C98970
76150
            MOVE ZERO TO FILE-DATA [2].
END-READ-'HAN, EXIT.
                                                                                                                                        C98970
76160
T61T0
                                                                                                                                        C98970
 76200
            READ-AIE.
                   JET SILE-DATA-3 IS EQUAL TO ZERO, GO TO ENU-READ-IRAN.
READ .N-FILE-AIE, AT END GO TO READ-AIE-A.
IF SE'L-NO-AIE EQUAL TO EOF-S-N GO TO READ-AIE-A.
GO TO END-READ-AIE.
T6210
                                                                                                                                        C98970
T6220
                                                                                                                                        COASTO
                                                                                                                                        C98970
T6240
T6250
            READ-ALL-A.
MOVE ZENO TO FILE-DATA [3].
END-READ-ALL. EXIT.
                                                                                                                                        C98970
                                                                                                                                        C98970
T6260
T6270
            READ-66-1.
                                                                                                                                        C98970
                   IF FILE-DATA-4 IS EQUAL TO ZERO, GO TO END-READ-66-1.

READ IN-FILE-66-1. AT END GO TO READ-66-1-A.

IF SEM-NO-66-1 EQUAL TO EOF-S-N GO TO READ-66-1-A.

GO TO END-READ-66-1.
                                                                                                                                        C989T0
T6310
76320
T6330
                                                                                                                                        C98970
                                                                                                                                        C989T0
T6340
            READ-66-1-A.
MOVE 'ENO TO FILE-DATA [4].
END-READ-60-1. EXIT.
T6350
                                                                                                                                         C989T0
T6360
                                                                                                                                        C98970
TOSTU
             WHITE-BANK.
                                                                                                                                         C989T0
                    IF HEC-05-110-TYPE-1-ONLY IS EQUAL TO SPACE OO TO WHITE-BANK-TYPE-2.
77621
                                                                                                                                        COASTO
T7U22
 71030
                    NOTE WHITE TYPE-I RECORD.
                                                                                                                                         COBSTO
            MOVE CUN-S-N TO SER-NO-TYPE-I.

MOVE CUN-WEEK TO WEEK-NO-TYPE-I.

WRITE OUT-REC FHOM REC-TYPE-I.

ADD J TO HECORDS-PASS.

WRITE-RANK-IYPE-2.
TTU40
                                                                                                                                        C989T0
7TU50
 T7060
                                                                                                                                         C989T0
                   MOVE CUM-S-N TO SER-NO-TYPE-2.
MOVE CUM-WEEK TO WEEK-NO-TYPE-2.
WRITT OUT-REC FROM REC-TYPE-2.
ADD I TO RECORDS-PASS.
 77UT0
                                                                                                                                         C989T0
 77100
                                                                                                                                         CORSTO
 TT120
TT130
77140
                                                                                                                                         C989T0
                                                                                                                                         C989TO
 71150
                                                                                                                                         C98970
                                                                                                                                         C98970
 71160
```

```
WRITE-BANK-TYPE-3.

IF HE3-65-110-TYPE-1-ONLY IS EQUAL TO SPACE AND
77400
                                                                                                                                      C98970
                                                                                                                                      C98970
                   UPTA-MEK-3 IS EQUAL TO ZERO AND

DATA-MEEK-4 IS EQUAL TO ZERO AND

DATA-WEEK-4 IS EQUAL TO ZERO HEN GO YO WRITE-BANK-TYPE-4.

MOVE JUK-S-M TO SER-NO-TYPE-3.

MOVE CUK-WEEK TO WEEK-NO-TYPE-3.
77230
                                                                                                                                      C98970
77231
                                                                                                                                      COASTO
77240
                                                                                                                                      C98970
77250
                                                                                                                                      C98970
                                                                                                                                      C98970
77270
                    MOVE 1 TO KNT.
                                                                                                                                      C98970
             WRITE-BANK-A.
77280
                                                                                                                                      C98970
77290
                    MOVE TABLE-3-WUC [KNT] TO WUC-TYPE-3.
                                                                                                                                      C98970
77500
                    MOVE TABLE-3-DATAA EKNTJ TO DATA-TYPE-3A. WRITE OUT-REC FROM HEC-TYPE-3.
                                                                                                                                      C98970
77330
                                                                                                                                      C98970
                    AOD 1 TO RECORDS-PASS.
AOD 1 TO KNT.

1F KNT 15 GREATER THAN POS-TABLE-3 GO TO WRITE-BANK-YYPE-4.
77540
                                                                                                                                      C98970
77350
                                                                                                                                      C98970
77560
                                                                                                                                      C98970
 77 370
                     GU TU WHITE-BANK-A.
                                                                                                                                      C98970
            WRITE-BAY-TYPE-4.

IF DATA-WEEK-4 IS EQUAL TO ZERO GO TO END-WRITE-BANK.

IF POS-1ABLE-4 IS EQUAL TO ZERO GO TO END-WRITE-BANK.

MOVE CUK-S-N TO SER-NO-TYPE-4.

MOVE CUK-4ELK TO WEEK-NO-TYPE-4.

MOVE 1 TO KNT.
77400
                                                                                                                                      C98970
 77420
                                                                                                                                      C98970
77440
                                                                                                                                      C98970
77450
                                                                                                                                      C98970
77460
                                                                                                                                      C98970
                                                                                                                                      C98970
77500
             WRITE-BANK-U.
                                                                                                                                      C98970
                    MOVE TABLE-4-ROW EKNT) TO DATA-TYPE-4. WRITE OUT-REC FROM REC-TYPE-4.
77510
                                                                                                                                      C98970
77520
                                                                                                                                      C98970
                    AOD 1 TO RECORDS-PASS.
AOD 1 TO KNT.
1F KPT 1S GREATLE THAN POS-TABLE-4 GO TO END-WRITE-BANK.
77530
77540
                                                                                                                                      C98970
77550
                                                                                                                                      C98970
77560
77700
            GO TO WRITE-BANK-B.
ENG-WRITE-BANK. EXIT.
                                                                                                                                      C98970
                                                                                                                                      C98970
 78u00
             INIT-SN-K ..
                                                                                                                                      C98970
78020
             INIT-65-110
                                                                                                                                      C98970
                    PERFORM READ-65-110 THRU END-READ-65-110.
1F 5km-x0-65-110 15 LESS THAN F1RST-A-C GO TO INIT-65-110.
 78021
                                                                                                                                      C98970
78022
                                                                                                                                      C98970
             INIT-IRAL .
78040
                                                                                                                                      C98970
                   PERFORM READ-IRAN THRU END-READ-IRAN.

1F SER-MO-IRAN 15 LESS THAN FIRST-A-C GO TO INIT-IRAN.
78041
78042
                                                                                                                                      C98970
             INIT-ALL.
PERFORM READ-ALE
                                                                                                                                      C98970
78060
                                                      THRU ENO-READ-ATE.
78462
                                                                                                                                      C98970
 78u63
                    IF SER-HO-ALE
                                                 IS LESS THAN FIRST-A-C GO TO INIT-AIE.
                                                                                                                                      C98970
             INIT-66-1.
PERFCRM REAO-66-1 THRU END-READ-66-1.
78480
                                                                                                                                      C98970
780A1
                                                                                                                                      C98970
                   PERFORM READ-66-1 INFO END-MEAD-66-1.

IF SER-IND-66-1 IS LESS THAN FIRST-A-C THEN 00 TO INIT-66-1.

NOTE STURE SERIAL NUMBER-WEEK NUMBER INTO KEYS.

MOVE SER-NO-65-110 TO SER-NO [1].

COMPUTE WEEK-NO [1] > [1]-0AY-65-110 < 3) / 7 < 1.

MOVE SER-NO-1RAN TO SER-NO [2].
 78482
                                                                                                                                      C98970
                                                                                                                                     C98970
C98970
78100
78110
78120
78130
                                                                                                                                      C98970
                                                                                                                                      C98970
                    COMPUTE WEEK-NO [2] > [1RAN-START-DAY < 3] / 7 < 1. MOVL SER-NO-ALL TO SER-NO [3].
78140
                                                                                                                                      C98970
78150
                                                                                                                                      C98970
                    COMPLITE WEEK-NO [3] > [J-OAY-ALE < 3] / 7 < 1.
78160
                                                                                                                                      C98970
                   MOVE SER-NO-66-1 TO SER-NO [4].
COMPUTE WEEK-NO [4] > [J-OAY-66-1 < 3] / 7 < 1.
78176
                                                                                                                                      C98970
78180
                                                                                                                                      C98970
78190
             END-INTT SN-WK. EXIT.
                                                                                                                                      C98970
78200
            START-BANK.
                                                                                                                                      C98970
            START-PANK-A
                                                                                                                                      C98970
78220
                   RT-FANK-A.

PERFLHM DATA-AVAIL THRU END-DATA-AVAIL.

IF (IM-WEEK GREATER THAN LAST-WEEK GO TO END-START-BANK.

IF UATA-AVAIL-CODE EQUAL TO ZERO GO TO START-BANK-D.

IF DATA-AVAIL-CODE EQUAL TO 2 GO TO START-BANK-B.

IF DATA-AVAIL-CODE EQUAL TO 4 GO TO START-BANK-D.

IF DATA-AVAIL-CODE EQUAL TO 6 GO TO START-BANK-B.

IF DATA-WEEK-1 IS EQUAL TO ZERO GO TO START-BANK-I.

IF DATA-WEEK-4 IS EQUAL TO ZERO GO TO START-BANK-O.

GO TC END-START-BANK.

NOTE INAN DATA AVAILABLE.
78230
                                                                                                                                      C98970
78240
                                                                                                                                      C98970
78250
                                                                                                                                      C98970
78260
                                                                                                                                     C98970
C98970
78270
78280
                                                                                                                                      C98970
78281
                                                                                                                                      C98970
78282
                                                                                                                                     C98970
C98970
78290
78300
                    NOTE IRAN DATA AVAILABLE.
78510
78520
            START-BANK-8.
                                                                                                                                      C98970
                   NT-BANK-B.

PERFURM RUSET-INAN THRU END-RESET.

PERFURM PROC-IRAN THRU END-PROC-IRAN.

MOVE ZEHO TO NO-WEEK-PROC.

PERFURM READ-IRAN THRU END-READ-IRAN.

IF FILE-DATA-2 EQUAL TO ZERO GO TO SYART-BANK-C.

MOVE SEH-NO-IRAN TO SER-NO (2).
                                                                                                                                      C98970
78330
78340
                                                                                                                                      C98970
                                                                                                                                      C98970
78350
                                                                                                                                      C98970
78360
                                                                                                                                     C98970
78570
                   COMPUTE WEEK-NO (2) > (IRAN-START-DAY < 3) / 7 < 1.
78380
                    GO TO START-BANK-A.
78390
                                                                                                                                     C98970
                                                                                                                                     C98970
78400
            START-BANK-C. MOVE LOF-S-N TO SER-NO [2].
                                                                                                                                      C98970
78410
                   MOVE EDE-JOAY TO WEEK-NO [2].
GO TO START-BANK-A.
78420
                                                                                                                                      C98970
78430
            START-BANK-U.
                                                                                                                                      C98970
                   AUD ONE TO CUR-WEEK.

AOD ONE TO NO-WEEK-PROC.

IF UPTA-AVAIL-CUDE EQUAL TO ZERO GO TO START-BANK-A.
                                                                                                                                      C98970
78450
                                                                                                                                      C98970
C98970
78460
78470
            START-PANK-E.
                                                                                                                                      C98970
78480
                   PERFCYM READ-AIL THRU END-READ-AIE.

IF FILE-DATA-3 EQUAL TO ZERO GO TO START-BANK-H.

IF SER-40-AIE NOT EQUAL TO CUR-S-N GO YO START-BANK-G.

COMPUTE WEEK-NO-COMP > CJ-DAY-AIE < 33 / 7 < 1.
78490
78500
                                                                                                                                      C98970
                                                                                                                                      C98970
                                                                                                                                      C98970
78510
78520
                                                                                                                                      C98970
```

```
78530
                    IF WEEK-NO-COMP LESS THAN CUR-WEEK GO TO START-BANK-E.
                                                                                                                                       C98970
            START-BANK-F.
                                                                                                                                       C98970
78540
            MOVE WLEK-NO-COMP TO WEEK-NO [3],
GO [6 START-BANK-A.
START-BANK-A.
                                                                                                                                       C98970
78560
                                                                                                                                       C98970
78570
                                                                                                                                       C98970
            MOVE SER-NO-AIE TO SER-NO [3].
COMPUTE WEEK-NO-COMP > [J-DAY
GO TL START-RANK-F.
START-BANK-F.
78580
                                                                                                                                       CGAGTO
                                                          > [J-DAY-AIE < 3] / 7 < 1.
78585
                                                                                                                                       C98970
78590
                                                                                                                                        C98970
78600
                                                                                                                                       C98970
                    MOVE LOF-S-N TO SER-NO [3],
MOVE EOF-JDAY TO WEEK-NO [3],
GO [( START-BANK-A.
 78610
                                                                                                                                        C98970
78620
                                                                                                                                       CGAGTO
78630
                                                                                                                                       C98970
            START-PANK-1.
78640
                                                                                                                                       C98970
                    NOTE UPSPACE 66-1.
AOD CHE TO CUR-WEEK.
AOD ONE TO NO-WEEK-PROC.
78041
                                                                                                                                       C98970
                                                                                                                                       C98970
C98970
78642
76643
            AOD THE TO THE START-BANK-J.

PERFURM READ-60-1 THRU END-READ-66-1.

IF FI.L-DATA-4 EQUAL TO ZERO GO TO START-BANK-K.

IF SFR-NO-66-1 1S NOT EQUAL TO CUR-S-N GO TO START-BANK-L.

COMPUTE WEEK-NO-COMP > CJ-DAY-66-1 < 33 / 7 < 1.

IF #LEK-NO-COMP LESS THAN CUR-WEEK GO TO START-BANK-J.
78645
                                                                                                                                        C98970
78046
                                                                                                                                       C98970
78647
                                                                                                                                       C98970
78648
                                                                                                                                       C98970
                                                                                                                                       C98970
78647
78650
                                                                                                                                        C98970
7A651
                                                                                                                                        CGAG70
                    MOVE WELK-NO-COMP TO WEEK-NO [4].
                                                                                                                                       C98970
78652
             GO TO START-BANK-A.
                                                                                                                                       C98970
C98970
78053
78654
                    MOVE SER-NO-66-1 TO SER-NO [4].
COMPUTE WEEK-NO-COMP > [J-DAY-66-1 < 3] / 7 < 1.
GO TO START-BANK-M.
 78655
78056
                                                                                                                                       C98970
                                                                                                                                       C98970
78657
             START-RANK-K.
                                                                                                                                        C98970
                    MOVE EOF-S-N TO SER-NO [4].
MOVE EOF-JOAY TO WEEK-NO [4].
GO TC START-BANK-A.
                                                                                                                                       C98970
78659
 78660
                                                                                                                                        C98970
78661
                                                                                                                                       CGAG70
             START-BANY-0.
                                                                                                                                       C98970
 78670
 78671
                    NOTE UPSPACE 65-110.
                                                                                                                                        C98970
                    ADD ONE TO CUR-WEEK.
ADO C'VE TO NO-WEEK-PROC.
                                                                                                                                       C98970
78672
 78673
 78675
             START-BALK-K.
                                                                                                                                       C98970
                    TT-BAR'S-K.
PERFORM READ-65-110 THRU END-READ-65-110.

1F F:LE-DATA-3 EQUAL TO ZERO GO TO START-BANK-P.

1F S:R-NO-65-110 IS NOT EQUAL TO CUR-S-N GO TO START-BANK-Q.
COMPLIES HEEK-NO-COMP > LJ-DAY-65-110 < 33 / 7 < 1.

IF NELK-NO-COMP LESS THAN CUR-WEEK GO TO START-BANK-R.
                                                                                                                                        C98970
 78676
 78677
                                                                                                                                        CGRG70
                                                                                                                                       C98970
 78678
                                                                                                                                        C98970
 78679
78580
                                                                                                                                       C98970
             START-BALK-5.
 78681
                                                                                                                                        C98970
                    MOVE WEEK-NO-COMP TO WEEK-NO [13.
78682
                                                                                                                                       C98970
                    GO TO START-BANK-A.
78683
                                                                                                                                       C98970
             START-BANK-U.
                    MOVE SEH-NO-65-110 TO SER-NO [1].
COMPLITE WEEK-NO-COMP > [J-DAY-65-110 < 3] / 7 < 1.
78685
                                                                                                                                       C98970
                                                                                                                                       C98970
78686
 78687
             GO TO START-BANK-S.
START-BANK-P.
                                                                                                                                        C98970
 78688
                                                                                                                                       CGAGTO
                    MOVE LOF-S-N TO SER-NO [1].
MOVE LOF-JDAY TO WEEK-NO [1].
GO TO START-BANK-A.
                                                                                                                                       C98970
 78689
78690
                                                                                                                                        C98970
                                                                                                                                       C98970
 78691
78699
78700
             END-START-BANK, EXIT.
                                                                                                                                        C98970
             FILES-EOF.
                                                                                                                                       C98970
 78720
             FILES-EOF-A.
                                                                                                                                       C98970
                    COMPUTE ALL-EOF > FILE-DATA [1] < FILE-DATA [2] 

FILE-DATA [3] < FILE-DATA [4],</pre>
IF ALL-LOF EQUAL TO ZERO
78730
                                                                                                                                        C98970
78740
                                                                                                                                       C98970
 78750
                                                                                                                                       C98970
78760
78770
                           GO TO END-FILES-EOF.
                                                                                                                                       C98970
             FILES-EUF-H.
                                                                                                                                       C98970
                    :S-E0F-H.

PERF'RM ST-SN-WK THRU END-ST-SN-WK.

COMPUTE FILE-NO > FILE-LOW-DATA.

IF SER-NO [2] GREATER THAN SER-NO [FILE-NO]

(0 TO FILES-E0F-C.

MOVE WEEK-NO [FILE-NO] TO TEMP.

IF TEMP 1S GREATER THAN LAST-WEEK ...

GO TO FILES-E0F-C.

IF CLR-S-N LESS THAN SER-NO [FILE-NO]

GO TO END-FILES-E0F.
 78780
                                                                                                                                        C98970
78790
                                                                                                                                       C98970
C98970
 78800
78810
                                                                                                                                        C98970
78820
                                                                                                                                       C98970
 78821
                                                                                                                                        C98970
78830
                                                                                                                                        C98970
78840
                                                                                                                                       C98970
 78850
                           GU TO END-FILES-EOF .
                                                                                                                                        C98970
 78860
             FILES-EUF-C.
                                                                                                                                       C98970
                    GO 1C FILES-EOF-O, FILES-EOF-E, FILES-EOF-F, FILES-EOF-6, CEPENDING ON FILE-LOW-DATA,
                                                                                                                                        CGAGTO
78880
             FILES-EUF-O.
                                                                                                                                        C98970
 78890
                   IS-EUR-U.

SECH-U.

IF FILE-DATA-1 EQUAL TO ZERO GO TO FILES-EOF-A.

IF SEK-NO-65-110 LESS THAN CUR-S-N GO TO FILES-EOF-D.

MOVE SEK-NO-65-110 TO SER-NO [1].

COMPUTE WEEK-NO-COMP > [J-DAY-65-110 < 3] / 7 < 1.

MOVE WEEK-NO-COMP TO WEEK-NO [1].
78900
78910
                                                                                                                                        C98970
                                                                                                                                        C98970
                                                                                                                                       C98970
C98970
78920
 78930
 78940
                                                                                                                                        C98970
 78950
                                                                                                                                       C98970
             GO TO FILES-EOF-A.
 78960
                                                                                                                                        C98970
78470
                                                                                                                                        CGAGTO
                    PERFORM READ-IRAN THRU END-READ-IRAN.

IF F1'LE-DATA-2 EQUAL TO ZERO GO TO FILES-EOF-A.

IF SER-NO-1RAN LESS THAN CUR-S-N GO TO FILES-EOF-E.

MOVE JER-NO-1RAN TO SER-NO [2].
 78980
78490
                                                                                                                                       COASTO
79000
                                                                                                                                       C98970
                                                                                                                                        C98970
79010
```

```
COMPU'E WEEK-NO-COMP > [IRAN-START-DAY < 3] / 7 < 1, MOVE WEEK-NO-COMP TO WEEK-NO [2].
 79020
                                                                                                                                                       C98970
 79030
                                                                                                                                                       C98970
 79040
                                                                                                                                                       C98970
              GO TO FILES-EOF-B.

FILES-EOF F.

PERFOHM READ-AIE THRU END-READ-AIE.

IF FILE-DATA-3 EQUAL TO ZERO GO TO FILES-EOF-A.

IF SEN-NO-AIE LESS THAN CUR-S-N GO TO FILES-EOF-F.

MOVE SER-NO-AIE TO SER-NO [3].

COMPUTE WEEK-NO-COMP > [J-DAY-AIE < 3] / 7 < 1.

MOVE WEEK-NO-COMP TO WEEK-NO [3].
 79050
                                                                                                                                                       C98970
 79060
                                                                                                                                                       C98970
 79070
79080
                                                                                                                                                       C98970
                                                                                                                                                       C98970
 79090
                                                                                                                                                       C98970
 79100
                                                                                                                                                       C98970
 79110
                                                                                                                                                       C98970
 79120
                       GO TC FILES-EOF-B.
                                                                                                                                                       C98970
               FILES-EUF-G.
 79130
                                                                                                                                                       C98970
                      PERFORM READ-66-I THRU END-READ-66-1.

IF FILE-DATA-4 EQUAL TO ZERO GO TO FILES-EOF-A.

IF SEN-NO-66-1 LESS THAN CUR-S-N GO TO FILES-EOF-G.
 79140
79150
                                                                                                                                                       C98970
                                                                                                                                                       C98970
 79160
                                                                                                                                                       C98970
              MOVE SEK-NO-66-1 TO SER-NO [4].

COMPUTE WEEK-NO-COMP > (J-DAY-66-1 < 3] / 7 < 1,

MOVE WEEK-NO-COMP TO WEEK-NO [4].

GO TO FILES-EOF-B.

EMU-FILES-EOF. EXIT.
 79170
                                                                                                                                                       C98970
 79180
                                                                                                                                                       C98970
 79190
                                                                                                                                                       C98970
 79200
                                                                                                                                                       C98970
 79210
                                                                                                                                                       C98970
 79500
               DATA-AVA.L.
                                                                                                                                                       C98970
                      MOVE ZERO TO DATA-AVAIL-CODE. MOVE ONE TO FILE-NO.
 79510
                                                                                                                                                       C98970
 79520
              MOVE ONE TO FILE-NO.

DATA-AVAIL-A.

MOVE ZERO TO DATA-WEEK (FILE-NO).

IF SEM-HO (FILE-NO) NOT EQUAL TO CUR-S-N,
GO 10 DATA-AVAIL-B.

MOVE WELK-NO (FILE-NO) TO TEMP.

IF ICMP IS NOT EQUAL TO CUR-WEEK,
CO 10 DATA-AVAIL-B.
                                                                                                                                                       C98970
 79530
                                                                                                                                                       C98970
 79540
79550
                                                                                                                                                       C98970
                                                                                                                                                       C98970
 79560
                                                                                                                                                       C98970
 79570
                                                                                                                                                       C98970
 79571
                                                                                                                                                       C98970
 79580
                                                                                                                                                       C98970
                      MOVE ONE TO DATA-WEEK [FILE-NO].

COMPUTE KNR > 2 ** [FILE-NO - 1].

COMPUTE DATA-AVAIL-CODE > DATA-AVAIL-CODE < KNB.
 79590
                                                                                                                                                       C98970
 79600
                                                                                                                                                       C98970
 79610
                                                                                                                                                       C98970
              DATA-AVATL-U.
                                                                                                                                                       C98970
 79620
              ADD 1 TO FILE-NO.

IF FILE-NO LESS THAN 5, GO TO DATA-AVAIL-A.

END-DATA-AVAIL.
 79630
                                                                                                                                                       C98970
 79540
                                                                                                                                                       C98970
 79650
                                                                                                                                                       C98970
79660
80000
              EXIT. RESET-SEK-NO.
                                                                                                                                                       C98970
                                                                                                                                                       C98970
                      MOVE NIME-X1 TO SERIES-TYPE-I.

MOVE NIME-X1 TO SERIES-TYPE-2.

MOVE NIME-X1 TO SERIES-TYPE-3.

MOVE NIME-X1 TO SERIES-TYPE-4.

NOTE THIS SETS SERIES TO 9 IN ALL OUTPUT FILES.
 80010
                                                                                                                                                       C98970
80020
                                                                                                                                                       COROYO
80U30
                                                                                                                                                       C98970
80040
                                                                                                                                                       C98970
80050
                                                                                                                                                       C98976
 80200
              RESET-WEFK.
                      ET-WEFK.

MOVE ZEHO TO POS-TABLE-3.

MOVE ZEHO TO POS-TABLE-4.

MOVE VINE-94 TO FLT-TIME-TYPE-1.

MOVE NINE-94 TO SORTIES-TYPE-1.

MOVE NINE-94 TO LANDINGS-TYPE-1.

MOVE NINE-93 TO IRAN-VIS-NO-TYPE-2.

MOVE NINE-93 TO IRAN-CODE-TYPE-2.

MOVE NINE-94 TO IRAN-END-DAY-TYPE-2.

MOVE SPACE TO REC-65-110-TYPE-1-ONLY.

MOVE 1 TO KNT.
80221
                                                                                                                                                       C98970
80222
                                                                                                                                                       C98970
80230
80240
                                                                                                                                                       C98970
                                                                                                                                                       C98970
                                                                                                                                                       C90970
80260
                                                                                                                                                       C98970
 80270
                                                                                                                                                       C90970
 80280
                                                                                                                                                       C98970
 80290
                                                                                                                                                      C48970
80300
80400
                                                                                                                                                       C98970
                                                                                                                                                       C98970
80410
80420
              RESET-TABLE-3.
                                                                                                                                                       C98970
                      THARLE-3.

MOVE NINE-X5 TO TABLE-3-WUC (KNT),

MOVE NINE-93 TO TABLE-3-UNITS (KNT),

MOVE NINE-94 TO TABLE-3-LABOR (KNT),

MOVE NINE-94 TO TABLE-3-NORM (KNT),

MOVE NINE-93 TO TABLE-3-UNITS-ATC (KNT),

MOVE NINE-94 TO TABLE-3-NORS (KNT),
                                                                                                                                                       C98976
80430
                                                                                                                                                       C90970
                                                                                                                                                       C98970
80455
                                                                                                                                                      C98970
 80460
                                                                                                                                                       C98970
              ADD 1 TO KNT.

IF KNT IS LESS THAN TAB-SIZ-I GO TO RESET-TABLE-3.

MOVE 1 TO KNT.

RESET-TABLE-4.
80470
                                                                                                                                                       C98970
804B0
                                                                                                                                                       098970
80490
80500
                                                                                                                                                       C98970
                                                                                                                                                      C98970
                      MOVE NINE-XS TO TABLE-4-WUC (KNT).
MOVE NINE-X1 TO TABLE-4-WOC (KNT).
MOVE NINE-X3 TO TABLE-4-HMC (KNT).
                                                                                                                                                      C98970
 80520
                                                                                                                                                       C98970
 80620
                                                                                                                                                       C98970
                      MOVE NINE-93 TO TABLE-4-UNITS (KNT).
MOVE NINE-94 TO TABLE-4-MHRS (KNT).
ADD: TO KNT.
 80630
                                                                                                                                                       C9B970
80640
                                                                                                                                                       C98970
80680
                                                                                                                                                      C98970
                       IF KNT IS LESS THAN TAB-SIZ-1 80 TO RESET-TABLE-4.
80690
                                                                                                                                                      C98970
80800
              RESET-AIE.
MOVE I TO KNT.
                                                                                                                                                       C98970
 80810
                                                                                                                                                       C98970
80820
              RESET-AIE-I
                                                                                                                                                      C98970
                      MOVE ZENO TO TABLE-3-AIE (KNT),
MOVE SPACE TO TABLE-3-WUC (KNT),
ADD 1 TO KNT,
80830
                                                                                                                                                       C98970
 80831
                                                                                                                                                       C98970
80840
                                                                                                                                                       C98970
                      ADD TO RESET-AIE-1.

IF KNT IS LESS THAN TAB-SIZ-I GO TO RESET-AIE-1.

MOVE SPACE TO SERIES-TYPE-3.

GO TO END-RESET.
80850
                                                                                                                                                       C98970
80870
                                                                                                                                                       C98970
80890
                                                                                                                                                       C98970
              RESET-65-110.
81000
                                                                                                                                                       C98970
                      MOVE ZERO TO FLT-TIME-TYPE-1.
MOVE ZERO TO SORTIES-TYPE-1.
BIUIO
                                                                                                                                                       C98970
81020
                                                                                                                                                       C98970
```

```
MOVE TERO TO LANDINGS-TYPE-1.
MOVE SPACE TO SERIES-TYPE-3.
MOVE SPACE TO SERIES-TYPE-1.
MOVE 1 TO KNT.
81030
                                                                                                                                                           COAGTO
81040
                                                                                                                                                           C98970
81050
                                                                                                                                                            C98970
A1 090
                                                                                                                                                            C98970
81100
                       TABLE-3-65-110.
MOVE SPACE TO TABLE-3-WUC [KHT].
                                                                                                                                                            C98970
                       MOVE ZERO TO TABLE-3-UNITS [KNT].
MOVE ZERO TO TABLE-3-LABOR [KNT].
MOVE ZERO TO TABLE-3-NORM [KNT].
                                                                                                                                                            C98970
81130
                                                                                                                                                            COROZO
81140
                                                                                                                                                           C98970
81150
                       MOVE ZERO TO TABLE-3-NORS [KNT].
                                                                                                                                                            C98970
                       ADD _ TO KNT.

IF K'T IS LESS THAN TAB-SIZ-1 GO TO SET-TABLE-3-45-110.
81 160
                                                                                                                                                            C98970
81170
                        GO TO END-RESET.
81290
31400
                                                                                                                                                            C98970
               RESET-IRAN.
                                                                                                                                                           C98970
                      MOVE NINE-93 TO IRAN-VIS-NO-TYPE-2.

MOVE NINE-93 TO IRAN-CODE-TYPE-2.

MOVE NINE-94 TO IRAN-START-DAY-TYPE-2.

MOVE NINE-94 TO IRAN-END-DAY-TYPE-2.

MOVE SPACE TO SERIES-TYPE-2.

GO TO END-RESET.
81410
                                                                                                                                                            C98970
81420
                                                                                                                                                            C98970
81440
81450
81490
                                                                                                                                                            C98970
                                                                                                                                                           C98970
             GO TO END-RESET.

RESET-66-1.

MOVE 1 10 KNT.

SET-TAPLF-4-66-1.

MOVE SPACE TO TABLE-4-WUC [KNT].

MOVE ZERO TO TABLE-3-UNITS [KNT].

MOVE ZERO TO TABLE-3-WC [KNT].

MOVE SPACE TO TABLE-3-WC [KNT].

MOVE ZERO TO TABLE-3-WC [KNT].

MOVE SPACE TO TABLE-4-WC [KNT].

MOVE SPACE TO TABLE-4-MC [KNT].

MOVE ZERO TO TABLE-4-MC [KNT].

MOVE ZERO TO TABLE-4-MRS [KNT].

ADD 1 TO KNT.
                                                                                                                                                            C98970
01600
                                                                                                                                                            C98970
81610
                                                                                                                                                            C98970
81620
                                                                                                                                                            C98970
81630
                                                                                                                                                            C98970
81640
81641
                                                                                                                                                            COROTA
81642
                                                                                                                                                           COAGTO
81643
                                                                                                                                                           C98970
81650
81690
                                                                                                                                                           C98970
                                                                                                                                                            C98970
81700
81710
                                                                                                                                                            C98970
                                                                                                                                                            C98970
                       ADD 1 TO KNT.

IF KNT IS LESS THAN TAB-SIZ-1 GO TO SET-TABLE-4-66-1.

MOVE SPACE TO SERIES-TYPE-4.
81740
                                                                                                                                                            C98970
                                                                                                                                                            C98970
                                                                                                                                                            C98970
              END-RESEL EXIT.
READ-WUC-LIST.
MOVE ZERO TO KNB.
81790
                                                                                                                                                            C98970
86000
                                                                                                                                                            C98970
86010
                                                                                                                                                            C98970
              MOVE ZERO TO KIND.

READ-L-W-1.

ADD . TO KNB.

READ IN-FILE-WUC AT END GO TO END-READ-WUC-LIST.

MOVE IN-REC-WUC TO LIST-WUC [KNB].

IF KI-B IS LESS THAN MAX-NUM-WUC GO TO READ-L-W-1.

END-READ-WUC-LIST. EXIT.
                                                                                                                                                            C98970
86020
                                                                                                                                                            C98970
                                                                                                                                                            C98970
86030
86040
                                                                                                                                                            C98970
86060
                                                                                                                                                            COROTA
                                                                                                                                                            C98970
86070
87000
87020
              ST-SN-WK - MOVE -UF-S-N TU SN-TEMP.
                                                                                                                                                            C98970
                                                                                                                                                           C98970
87030
                       MOVE ONE TO FILE-NO.
                                                                                                                                                           C98970
              ST-SN-WK-A.
MOVE FILE-DATA [FILE-NO] TO TEMP.
87040
87048
                                                                                                                                                            C98970
                                                                                                                                                            C98970
                       IF TOMP IS EQUAL TO ZERO, GO TO ST-SN-WK-B.
IF STR-10 [FILE-NO] GREATER THAN SN-TEMP, GO TO ST-SN-WK-B.
87050
                                                                                                                                                           C98970
87060
                                                                                                                                                           COROTA
             IF SFR-1.0 [F]LE-NO] GREATER THAN SN-TEMP,
MOVE F1LE-NO TO F1LE-LOW-DATA.
MOVE SEK-NO [FILE-NO] TO SN-TEMP.

ST-SN-WK'8.
ADD ONE TO F1LE-NO.
IF F1LE-NO LESS THAN 5. GO TO ST-SN-WK-A.
MOVE LOH-JDAY TO WEEK-NO-COMP.
MOVE ONE TO FILE-NO.
87070
                                                                                                                                                           C98970
87080
                                                                                                                                                            C98970
87090
                                                                                                                                                           C98970
87100
                                                                                                                                                            C98970
87110
87130
                                                                                                                                                           C98970
C98970
87140
                                                                                                                                                           C98970
87150
              ST-SN-WK-D.
                                                                                                                                                           COAGTO
                      N-WA-U.

MOVE FILE-DATA (FILE-NO) TO TEMP.

IF 1EMP IS EQUAL TO ZERO GO TO ST-SN-WK-E.

IF SER-NO (FILE-NO) NOT EQUAL TO SN-TEMP, GO TO ST-SN-WK-E.

MOVE WEEK-NO (FILE-NO) TO TEMP.

IF TEMP IS GREATER THAN WEEK-NO-COMP, GO TO
87160
                                                                                                                                                           C98970
87161
87170
                                                                                                                                                           C98970
                                                                                                                                                           C98970
87180
                                                                                                                                                           C98970
                       17-5N-WK-E.

MOVE FILE-NO TO FILE-LOW-DATA.

MOVE WELK-NO [FILE-NO] TO WEEK-NO-COMP.
87200
                                                                                                                                                           C98970
87210
                                                                                                                                                           C98970
              ST-SN-WK E.

ADD ONE TO FILE-NO.

IF FILE-NO LESS THAN 5, GO TO ST-SN-WK-D.
87220
87230
                                                                                                                                                           C98970
                                                                                                                                                           C98970
87240
87250
                                                                                                                                                            C98970
              END-ST-SN-WK . EXIT.
                                                                                                                                                            C98970
              END-ST-SN-WK. EXIT.

SN-WK-65-110.

SN-WK-65-110-A.

PERFORM PROC-65-110 THRU END-PROC-65-110.

PERFORM READ-65-110 THRU END-READ-65-110.

IF F'LE-DATA-1 IS EQUAL TO ZERO, 60 TO SN-WK-63-110-C.

COMPUTE WEEK-NO-COMP > [J-DAY-65-110 < 3] / 7 < 1.

IF SER-NO-65-110 NOT EQUAL TO CUR-S-N, 60 TO SN-WK-65-110-B.

EF WEEK-NO-COMP NOT EQUAL TO CUR-WEEK, 60 TO SN-WK-65-110-B.
                                                                                                                                                            C98970
88030
                                                                                                                                                           C 98970
88040
                                                                                                                                                           C98970
88050
                                                                                                                                                            C98970
88060
                                                                                                                                                            C98970
88070
                                                                                                                                                           C98970
BADAD
                                                                                                                                                           C98970
88090
                                                                                                                                                           C98970
88100
                        GO TO SH-WK-65-110-A.
                                                                                                                                                           C98970
               SN-WK-65-110-8.
88110
                                                                                                                                                           C98970
                       MOVE SEX-NO-65-110 TO SER-NO [1].
MOVE WEEK-NO-COMP TO WEEK-NO [1].
GO TO END-SN-WK-65-110.
88120
                                                                                                                                                           C98970
88130
                                                                                                                                                            C98970
88140
                                                                                                                                                           C98970
                      WK-65-110-C.
                                                                                                                                                           C98970
 88150
                       MOVE LOF-S-N TO SER-NO [1].
MOVE LOF-JOAY TO WEEK-NO [1].
88160
                                                                                                                                                            C98970
88170
                                                                                                                                                            C98970
```

```
END-SN-WF-65-110.
 88180
                                                                                                                                               C98970
 88190
88200
                     EXIT
                                                                                                                                                C98970
              SN-WK-IHAN.
                                                                                                                                               C98970
 88230
              SN-WK-IRAN-A
                     MK-IRAN-A.

PERFORM PROC-IRAN THRU END-PROC-IRAN.

PERFORM READ-IRAN THRU END-READ-IRAN.

IF FILE-OATA-2 IS EQUAL TO ZERO, 90 TO SN-WK-IRAN-C.

COMPUTE WEEK-NO-COMP > [IRAN-START-DAY < 3] / 7 < 1.

IF SER-NO-IRAN NOT EQUAL TO CUR-S-N, 90 TO SN-WK-IRAN-B.

IF WEEK-NO-COMP NOT EQUAL TO CUR-WEEK, 90 TO SN-WK-IRAN-B.
 88240
                                                                                                                                               C98970
C98970
 88250
 88260
                                                                                                                                               C98970
 88270
                                                                                                                                               C98970
 88280
                                                                                                                                               C98970
88290
88300
                                                                                                                                               C98970
                                                                                                                                               C98970
             GO TO SHEWE TROPERS

SN-WK-IRAN-&.

MOVE SER-NO-IRAN TO SER-NO [2].

MOVE WEEK-NO-COMP TO WEEK-NO [2].

GO TO END-SN-WK-IRAN.
 88310
                                                                                                                                               C98970
 88320
                                                                                                                                               C98970
 88330
                                                                                                                                               C98970
 88340
             SN-WK-IRAN-C.

MOVE TOF-S-N TO SER-NO (2).

MOVE EOF-JDAY TO WEEK-NO (2).
 88350
                                                                                                                                               C98970
 88360
 88370
                                                                                                                                               C98970
 88380
              END-SN-WK-IHAN.
                                                                                                                                               C98970
 88390
                     EXIT.
                                                                                                                                               C98970
                                                                                                                                               C98970
             SN-WK-AIE.

SN-WK-AIF-A.

PERFURM PROC-AIE THRU END-PROC-AIE.

PERFURM READ-AIE THRU END-READ-AIE.

IF F'LE-OATA-3 IS EQUAL TO ZERO. 00 TO SN-WK-AIE-C.

COMPUTE WEEK-NO-COMP > IJ-DAY-AIE < 33 / 7 < 1.

IF SER-NO-AIE NOT EQUAL TO CUR-S-N, 00 TO SN-WK-AIE-B.

IF WEEK-NO-COMP NOT EQUAL TO CUR-WEEK, 00 TO SN-WK-AIE-B.
 88430
                                                                                                                                               C98970
                                                                                                                                               C98970
 88450
                                                                                                                                               C98970
 88460
                                                                                                                                               C98970
88470
                                                                                                                                               C98970
 HA4ON
                                                                                                                                               C98970
                     GO TO SN-WK-AIE-A.
 88500
                                                                                                                                               C98970
             SN-WK-AIE-B.

MOVE SEN-NO-AIE TO SER-NO (3).

MOVE WEEK-NO-COMP TO WEEK-NO (3).
                                                                                                                                               C98970
 88520
                                                                                                                                               C98970
 88530
                                                                                                                                               C98970
                     GO TO END-SN-WK-AIE.
 88540
                                                                                                                                               C98970
              SN-WK-AIE-C.
 88550
                                                                                                                                               C98970
                     MOVE EOF-S-N TO SER-NO [3].
MOVE EOF-JDAY TO WEEK-NO [3].
 88560
 88570
                                                                                                                                               CONGTO
             END-SN-WK-AIE,
                                                                                                                                               C98970
 88590
                     EXIT.
                                                                                                                                               C98970
88500
              SN-WK-66' 1
                                                                                                                                               C98970
 88630
             SN-WK-66-1-A
                    MX-66-1-A.

PERFORM PROC-66-1 THRU END-PROC-66-1.

PERFORM READ-66-I THRU END-READ-66-1.

IF F'LE-DATA-4 IS EQUAL TO ZERO, 90 TO SM-WK-66-1-C.

COMPUTE WEEK-NO-COMP > [J-0AY-66-1 < 3] / 7 < 1.

IF SEH-NO-66-1 NOT EQUAL TO CUR-S-N, 80 TO SM-WK-66-1-B.

IF WEEK-NO-COMP NOT EQUAL TO CUR-WEEK, 80 TO SM-WK-66-1-B.

GO TO SN-WK-66-1-A.
88640
                                                                                                                                               C98970
 88650
                                                                                                                                               C98970
88660
                                                                                                                                               C98970
88670
                                                                                                                                               C98970
                                                                                                                                               C98970
C98970
88680
88690
88700
                                                                                                                                               C28970
             GO TO SN-WK-DD-1-A.

SN-WK-66-1-B.

MOVE 3EH-NO-66-1 TO SER-NO [4].

MOVE VELK-NO-COMP TO WEEK-NO [4].

GO TO END-SN-WK-66-1.
                                                                                                                                               C98970
88720
                                                                                                                                               C98970
88730
                                                                                                                                               C98978
88740
88750
                                                                                                                                               C90970
             SN-WK-66-1-C.

MOVE ZOF-S-N TO SER-NO (4].

MOVE EOF-JDAT TO WEEK-NO (4].
88760
                                                                                                                                               C98970
88770
                                                                                                                                               C98970
                    -SN-WK-66-1.
             END-
                                                                                                                                               C98970
88790
                                                                                                                                               C98970
             READ-DATA-IN-FILE.
READ DATA-IN-FILE INTO DATA-IN-A
90000
                                                                                                                                               C98970
90010
                                                                                                                                               C90970
                    AT END GO TO END-RDIF,
READ JATA-IN-FILE INTO DATA-IN-B,
AT END GO TO END-RDIF.
90020
                                                                                                                                               C98970
90030
                                                                                                                                               C98970
90040
                                                                                                                                               C98970
90050
                     MOVE ZERO TO KNT.
                                                                                                                                               C98970
                    MOVE ZERO TO KNT.

MOVE MISSION-IN TO MISSION-TYPE-1, MISSION-TYPE-2

MISSION-TYPE-3, MISSION-TYPE-4.

MOVE DESIGN-IN TO DESIGN-TYPE-1, DESIGN-TYPE-2,

DESIGN-TYPE-3, DESIGN-TYPE-4.
90060
                                                                                                                                               C98970
90080
                                                                                                                                               C98970
                                                                                                                                               C98970
90090
90100
                    READ JATA-IN-FILE INTO OATA-IN-C,
AT END GO TO END-RDIF.
90110
90120
                                                                                                                                               C98970
                    ADD I TO KNT.

HOVE X-CODE TO LIST-ATC (KNT).

IF KNT IS LESS THAN NUM-ATC 80 TO ROIF-A.

REAO OATA-IN-FILE INTO DATA-IN-O.
90140
                                                                                                                                               C98970
                                                                                                                                               C98970
90150
                                                                                                                                               C98970
C98970
90200
                                                           AT END GO TO END-ROIF.
90210
90220
                     MOVE ZEHO TO KNT.
                                                                                                                                               C98970
             ROIF-B.
90300
                                                                                                                                               C98970
                     READ DATA-IN-FILE INTO GATA-IN-C,
AT ENG GO TO ENG-ROIF.
90310
                    A00 : TU KNT.

MOVE X-CODE TO NOR-CODE (KNT).

IF KNT IS LESS THAN NUM-NCOOES 80 TO RDIF-8.

READ DATA-IN-FILE INTO OATA-IN-E.

AT END GO TO END-RDIF.
90320
                                                                                                                                               C98970
90330
                                                                                                                                               C98970
C98970
90340
90400
                                                                                                                                               C98970
90410
                                                                                                                                               C98970
                                                                                                                                               C98970
90430
             ROIF
                                                                                                                                               C98970
                     READ DATA-IN-FILE INTO DATA-IN-F.
                                                           AT END GO TO END-ROIF.
90450
                                                                                                                                               C90970
```

```
ADD 1 TO KNT.

MOVE ENG-WUC-IN TO ENGINE-WUC [KNT].

IF KNT IS LESS THAN NUM-ENG-WUC GO TO RDIF-C.

READ DATA-IN-FILE INTO DATA-IN-G.

AT END GO TO END-RDIF.
 90460
                                                                                                                                                              C98970
 90470
 90480
                                                                                                                                                               C98970
 90500
                                                                                                                                                               C98970
 90510
                                                                                                                                                               C98970
                                                                                                                                                               C98970
 90520
              RDIF-D.
READ DATA-IN-FILE INTO DATA-IN-H,
AT END GO TO END-RDIF.
 90530
90540
                                                                                                                                                               C98970
C98970
 90550
                                                                                                                                                               C98970
90550 AT END 60 TO END-RDIF,
90570 HOVE WUC-2DIG-IN TO WUC-POS-TYPE [KNT],
90580 HOVE FIRST-POSITION TO WUC-POS-END [KNT],
90590 HOVE _AST-POSITION TO WUC-POS-END [KNT],
90600 IF KNT IS LESS THAN NUM-WUC-SROUPS 90 TO RDIF-D,
10 END-RDIF, EXIT,
10 PLACE CJBOL SOURCE BEFORE THIS CARD
10 CHO.TFGIN DD +SPACE>(CYL-E1+1]
10 0000 GET TFO: WANG
                                                                                                                                                              C98970
C98970
                                                                                                                                                              C98970
C98970
C98970
                                                                                                                                                               C98970
                                                                                                                                                         1440 CDS
C98970'T
010001 019999 REPLACE
TFG DT01 11 0202080
03 04 57000230
                                                  0 357 F106 150
                                                                                                           NUMBER OF ATC.
P
 s
   17 9
                                                                                                           NUMBER OF NOR-NORM
Đ
H
٧
                                                                                                           NO ENGINE WUC
23A
238
23C
23D
23E
236
232
                                                                                                          NUM WUC GROUPS, NUM WUC
22
11
             2201
               251
                       250
                       288
12
13
14
23
41
               289
                       498
745
848
               404
               499
               746
               849
                       895
               896
                       919
44
               920 1024
            920 1024
1025 1167
1168 1196
1197 1216
1217 1258
1259 1308
1309 1316
1317 1326
46
49
51
52
55
63
65
71
74
75
93
97
+END
            1327 1384
1385 1430
            1431 1983
1984 2166
2167 2188
             2189 2201
*END
/* PLA
//TPR.TU12
//TPR.TU14
//TPR.TU15
//TPR.TU24
//TPR.TU25
//TPR.TU25
//TPR.TPRIN
T/P OTO1
                   TIE
        DT01
TU22
                   10100802080
19980502050
PLACE COBOL SOURCE BEFORE THIS CARD
```

6.5.5 SORT WUC FOR CONVERSION

```
D23-OUT
1440 CDS
C94970'T
```

74C0E 74CAE
74CR1 74CC1
74CR2 74CC8
74CRC 74CCB
74CRC 74CCC
74CC1 74CC1
74CS1 74CF1
74CS1 74CJ1
74CF1 74CJ1
74CF1 74CJ1
74CF1 74CJ1
74CT1 74CJ1
74CT1

```
74FBH 74FFH
74FBJ 74FFL
74FBL 74FFL
74FBH 74FFH
74FBH 74FFG
74EW1 74FH
74EW1 74FH
74EW1 74FH
74KH1 74KB1
74KB1 74KC
74KB1 74KC
74KC
74KC 74KC
74KC 74KC
74KD 74KE
         74KDB 74KEB
74KED 74KEB
74KE1 74KF1
74KEB 74KF2
74KF1 74KG1
74KF8 74KG2
74KFC 74KG7
74KFC 74KG7
74KF6 74KG7
74KF6 74KG7
74KF6 74KG7
74KF7 74KG7
74KF1 74KG7
74KF1 74KG1
   74GU1 74PB1
74GD1 74PC1
74BF1 74PD1
74GF1 74PF1
74GGA 74PFA
74GGA 74PFA
74GH1 74PG1
74GL1 74PH1
74GL1 74PL1
74GH1 74PL1
74GH1 74PL1
74GR1 74PP1
74GR1 74PP1
74GR1 74PP1
74GRA 74QAA
END
   /*
//C9897H EXEC C 1603N+T1ME>01+ACCT>D35323007
//CHG.TU23 DO DSN>+P-9897551+DISP>COLD+PASS)
//CHG.TPR1N DL +*SPACE>(TRK*(I+I))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       D23-IN
```

6.5.6 SORT WUC FOR DELETION

```
74KAB
                                               74KAB
74KEA
74KEA
74KED
74ALA
74AL1
74APA
74APB
                                                      74APC
74APF
74APG
                                        74APM

                                        740CC
740CD
740CE
740CI
740CI
740DI
745YI
74CAB
74CAB
74CCA
74CCB
74CCC
74CCD
74CCC
74CCD
74CCC
74CC
74CCC
74CCC
74CCC
74CCC
74CCC
7
```

74CCL 74CFB 74CJB 74CJB 74CJB 74CJD 74CJC 74FD1 74FD1 74FD1 74FD1 74FD0 74FD0

6.5.7 VERIFY WUC

```
//C9897F EXEC
//CHG.TU12
//CHG.TU13
                                                                                                                D12-1N
                                                                                                              CT14/15 1
//CHG. TU14
//CHG. TU24
                                                                                                              CT24/25
                                                                                                                124
//CHG. INPUT
                       DG +, SPACE>[CYL,[1,1]]
CCMBINE COMPILE
                                                                                                                1440 CDS
                                                                               6. WANG.
00000
                                                                                                                   C98970
          DATE-WRITTEN. 15 MAY 72.
                                                                                                                   C98970
          ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
02000
                                                                                                                   C98970
                                                                                                                   C98970
02010
           SOURCE-COMPUTER. 18M-360.
OBJECT-COMPUTER. 18M-360.
02030
                                                                                                                   C98970
           INPUT-OUTPUT SECTION.
FILE-CONTROL.
SELECT TABLE-1-FILE
02100
                                                                                                                   C98970
02110
                                                                                                                   C98970
                                                                ASSIGN TO UT-S-TU12
                                                                                                                   C98970
                 RESERVE 1 ALTERNATE AREA. SELECT TABLE-2-FILE
02130
                                                                                                                   C98970
                                                                ASSIGN TO UT-S-TU13
                                                                                                                   C98970
02140
                 REJERVE 1 ALTERNATE AREA.
SELECT DATA-IN-FILE
RESERVE 1 ALTERNATE AREA.
02150
                                                                                                                   C98970
                                                                                                                   C98970
02160
02170
                                                                ASSIGN TO UT-S-TU14
                                                                                                                   C98970
                 SELECT DATA-OUT-FILE
RESERVE 1 ALTERNATE AREA.
SELECT MSG-FILE
02180
                                                                ASSIGN TO UT-S-TU24
                                                                                                                   C98970
02190
                                                                                                                   C98970
02200
                                                                ASSIGN TO DA-S-DT01
                                                                                                                   C98970
                 RESERVE 1 ALTERNATE AREA.
SELECT CON-FILE
RESERVE 1 ALTERNATE AREA.
                                                                                                                   C98970
02210
02220
                                                                ASSIGN TO DA-S-DT02
                                                                                                                   C98970
10000
                                                                                                                   C98970
          DATA DIVISION.
                                                                                                                   C98970
10010
           FILE SECTION.
FD TABLE-1-FILE
                                                                                                                   C98970
                                                                                                                   C94970
11200
                 TABLE-1-PLE
RECORDING MODE 1S F
BLOCK CUNTAINS 20 RECORDS
RECORD CONTAINS 80
LABEL RECORDS ARE OMITTED
DATA HECORDS ARE TABLE-1-REC.
11210
                                                                                                                   C+8970
11220
11230
                                                                                                                   C98970
                                                              CHARACTERS
                                                                                                                   C98970
11240
                                                                                                                   C98970
                                                                                                                   C98970
11250
                 DATA RECORDS ARE TA
TABLE 1-REC SYNC.

02 F1 LER

02 WUC-1

02 F1LLER

TABLE 1-FILE

RECORDING MODE 15 F
                                                                                                                   C98970
11260
11270
                                                            PICTURE X. PICTURE XEST
                                                                                                                   C98970
11280
                                                                                                                   C98970
                                                            PICTURE XE74 J.
                                                                                                                   C98970
          FD
                                                                                                                   C98970
12000
12010
                 BLOCK CONTAINS 20 RECORDS
RECORD CONTAINS 80
LABEL !LCORDS ARE OMITTED
DATA HECORDS ARE TABLE-2-REC.
TABLE-2-REC SYNC.
12020
                                                                                                                   C98970
                                                              CHARACTERS
                                                                                                                   C98970
12030
12040
                                                                                                                   C98970
12050
                                                                                                                   C98970
                                                                                                                   C98970
12060
          01
                 02 FILLER
02 WU:-2
02 FILLER
02 WUC-3
02 FILLER
                                                            PICTURE X,
PICTURE X(5).
12070
                                                                                                                   C98970
                                                                                                                   C98970
12080
                                                            PICTURE X.
12090
                                                                                                                   C98970
12100
                                                                                                                   C98970
C98970
12110
                                                             PICTURE XC68 J.
                 DATA-1'I-FILE
HECORUING MODE IS F
BLOCK CONTAINS 60 RECORDS
RECORD CONTAINS 50
13000
13010
                                                                                                                   C98970
C98970
           FD
13020
                                                              CHARACTERS
13030
                                                                                                                   C98970
```

```
LABEL RECORDS ARE OMITTED DATA RECORDS ARE DATA-IN-REC. DATA-IN-REC SYNC.
13040
                                                                                                                                                                                                  C98970
13050
13060
                                                                                                                                                                                                   C98970
                                                                                                                                                                                                   C98970
                             02 FI'LER
02 WLEK
13070
                                                                                                      PICTURE XE 133.
PICTURE XXX.
                                                                                                                                                                                                   C9897II
                                                                                                                                                                                                  C98970
                                                                                                       PICTURE XES J.
 13090
                                        WUL
                                      FI LER REDEFINES WUC.
03 WUC-2-01GIT
03 FILLER
 13100
                              02
                                                                                                                                                                                                   C98970
                                                                                                      PICTURE XX.
 13110
                                                                                                                                                                                                   690970
                                                                                                      PICTURE XXX.
PICTURE XE293.
                                                                                                                                                                                                   C98970
                             02 FILLER
13130
                            02 FILLER PICT
DATA=0 II-FILE
RECORDING MODE IS F
BLOCK CONTAINS 60 RECORDS
RECORD CONTAINS 50
LABEL RECORDS ARE OMITTED
DATA RECORDS ARE DATA-OUT-FILE.
DATA-OUT-REC
02 FI'LER
MSG-FILE
RECORDING MODE IS F
                                                                                                                                                                                                   C98970
                  FD
                                                                                                                                                                                                   C98970
 14010
                                                                                                                                                                                                   COAGTO
                                                                                                                                                                                                   C98970
 14020
                                                                                                        CHARACTERS
 14030
                                                                                                                                                                                                   C98970
 14040
                                                                                                                                                                                                   C98970
 14050
                                                                                                                                                                                                   C98970
14060
                                                                                                                                                                                                   C98970
                                                                                                      PICTURE XESO 3.
                                                                                                                                                                                                   C98970
                FD
15000
                                                                                                                                                                                                  C98970
                            MSG-FILE
RECORDING MODE IS F
BLOCK CONTAINS 40 RECORDS
RECORD CONTAINS 70
LABEL RECORDS ARE STANDARD
DATA RECORDS ARE MSG-REC.
MSG-RE: SYNC.
U2 WUC-MSG
02 FILLER-A
15010
                                                                                                                                                                                                   C98970
15020
                                                                                                                                                                                                   C98970
                                                                                                         CHARACTERS
15030
                                                                                                                                                                                                  C98970
15040
                                                                                                                                                                                                   C98970
15050
                                                                                                                                                                                                   C98970
15060
                                                                                                                                                                                                   C98970
                                                                                                      PICTURE XC5J.
PICTURE XC65J.
 15070
15080
                                                                                                                                                                                                   C98970
                             CON-FILE
                  FD
 16000
                                                                                                                                                                                                  C98970
                             RECORUTING MODE IS F
BLOCK CUNTAINS 20 RECORDS
16010
                                                                                                                                                                                                   C98970
16020
                                                                                                                                                                                                  C98970
                             RECORD CONTAINS 80
LABEL "ECORDS ARE STANDARD
DATA HECORDS ARE CON-REC.
 16030
                                                                                                        CHARACTERS
16040
16050
                                                                                                                                                                                                   C98971
                 DATA HªCORDS ARE CON-REC
01 CON-REC SYNC.
05 WELK-CHNG
05 FI LER
05 WUCZ
05 FILLER
WORKING-STUKAGE SECTION.
77 REC-RE'D COMPUTATIONAL
77 REC-CHUG COMPUTATIONAL
77 REC-CHUG COMPUTATIONAL
77 REC-CHUG COMPUTATIONAL
77 TEMP-NO SYNC
                                                                                                                                                                                                   C98970
16100
                                                                                                                                                                                                   C98970
                                                                                                      PICTURE XXX.
PICTURE X.
PICTURE XX.
 16110
                                                                                                                                                                                                   C98970
 16120
                                                                                                                                                                                                   298970
16130
                                                                                                                                                                                                   C98970
                                                                                                      PICTURE XC743.
                                                                                                                                                                                                   C98970
50000
                                                                                                                                                                                                   C98970
                                                                                                     PICTURE S9(7) VALUE ZERO SYNC.
 30U20
                                                                                                                                                                                                  C98970
30030
                                                                                                                                                                                                  C98970
30040
                                                                                                                                                                                                  C98970
30050
                                                                                                                                                                                                  C98970
                                                                                                      PICTURE SOCS 1.
                           CNT COMPUTATIONAL SYNC
TEMP=NO SYNC
NUC-TE.IP
NO-TAB=1 COMPUTATIONAL SYNC
NO-TAB=2 COMPUTATIONAL SYNC
NO-TAB=2 COMPUTATIONAL SYNC
NO-ERRCRS SYNC
NN-ERRCRS S
30060
                                                                                                                                                                                                  C98970
 30070
                                                                                                                                                                                                  C98970
30080
                                                                                                                                                                                                   C98976
30090
30100
                                                                                                                                                                                                  C98970
30110
                                                                                                                                                                                                  C90976
 50120
               77
32000
                                                                                                                                                                                                  C08070
                             32010
                                                                                                                                                                                                  C98970
                            FILLER SYNC.

OZ TAFLE-I OCCURS 300 TIMES PICTURE X(5).

OZ FILLER OCCURS 2 TIMES.

OZ TABLE-2 OCCURS 300 TIMES PICTURE X(5).

MSG-I SYNC.
33000
                  01
                                                                                                                                                                                                  C98970
33010
                                                                                                                                                                                                  COROYE
33020
                                                                                                                                                                                                  C98970
33030
                                                                                                                                                                                                  C9897
                                                                                                                                                                                                  C98970
34000
                                                         PICTURE XC653 VALUE OCCURS IN TABLE-2 (LHS) AND TABLE-1.
34010
                             02 FILLER
34020
                                                 1
                                                                                                                                                                                                  098976
34030 -
                                                                                                                                                                                                  C98976
                            MSG-2 FYNC.
02 FILLER
34100
                  01
                                                                                                                                                                                                  C98976
                                                           PICTURE X[65] VALUE
OCCURS IN TABLE-2 [RH] BUT NOT IN TABLE-2 [LH] OR
                                                                                                                                                                                                 098976
098970
34110
                            IN TAILE-I.
34130 -
34200 01
                                                                :.
                                                                                                                                                                                                  098976
34210
                             02 FILLER
                                                                                                      PICTURE XE653 VALUE
                                                                                                                                                                                                   098970
                                                             IS DUPLICATED IN TABLE-1.
34220
                                                                                                                                                                                                   C98970
 34230 -
                                                                                                                                                                                                  C98970
                  01 MSG-4 SYNC.
34300
                                                                                                                                                                                                  C98970
                             02 FILLER
34.510
                                                           PICTURE XE653 VALUE
IS DUPLICATED IN TABLE-2 [RM]
                                                                                                                                                                                                   C98970
34520
                                                                                                                                                                                                  C98970
34330 -
                                                                                                                                                                                                   C98970
                  01 MSG-5 STNC.
34400
                                                                                                                                                                                                   C98970
34410
                             02 FILLER
                                                                                                      PICTURE XE653 VALUE
                                                                                                                                                                                                  C98970
34420
                                                            IS DUPLICATED IN TABLE-2 [LH]
                                                                                                                                                                                                  C98970
                                                                                                                                                                                                   C98970
50000
               PROCEDURE DIVISION
                                                                                                                                                                                                  C98970
                            OPEN INPUT TABLE-1-FILE, CON-FILE,
TABLE-2-FILE,
DATA-IN-FILE,
OUTPUT DATA-OUT-FILE, MSG-FILE,
READ CCA-FILE AT END GO TO READ-TABLE-1.
50100
50110
                                                                                                                                                                                                   C98970
50120
                                                                                                                                                                                                  C98970
50130
                                                                                                                                                                                                  C98970
50140
                                                                                                                                                                                                  C98970
                 READ-TABLE- 1.
50200
                            REAU TAULE-I-FILE. AT END GO TO READ-TABLE-2.
50210
                                                                                                                                                                                                  C98970
                            ADD I TO NO-TAB-I.

MOVE WIG-I TO TABLE-1 [NO-TAB-I].

GO TO PEAD-TABLE-I.
50220
                                                                                                                                                                                                  C98970
50230
                                                                                                                                                                                                  C98970
                                                                                                                                                                                                  C98976
```

```
50.500
           READ-TABLE-2.
READ 1/BLE-2-FILE. AT END GO TO R-D.
                                                                                                                         C98970
50510
                                                                                                                         C98970
                  A00 1 TO NO-TAB-2.

MOVE WIG-2 TO TABLE-2 [1, NO-TAB-2].

MOVE WIG-3 TO TABLE-2 [2, NO-TAB-2].
                                                                                                                         C98970
50320
                                                                                                                         C98970
50.530
50540
50350
                  GO TO K_AO-TABLE-2.
                                                                                                                         COROTA
                                                                                                                         C98970
           R-D.
50355
                 PERFORM CHECK-WUC-DATA THRU ENG-CWD.

IF NO-EKRORS IS NOT EQUAL TO ZERO DISPLAY NO-ERRORS ! ERRORS:

UPON CCHSOLE, GO TO CFA.
50360
50570
                                                                                                                         C98970
                                                                                                                         C98970
50380
 50400
           READ-DATA-INPUT
                                                                                                                         C98970
                  HEAD DATA-IN-FILE, AT END 60 TO CLOSE-FILE.
                                                                                                                         C98970
50410
50420
                  AOD 1 13 REC-READ.
504.50
                  IF WEEK IS LESS
                                                       THAN WEFK-CHNG GO TO CHK-WUC.
                                                                                                                         C98970
           COPY-REC. WRITE DATA-OUT-REC FROM DATA-IN-REC.
50500
50510
                                                                                                                         C98970
                  ADO 1 TO REC-PASS.
GO TO PEAD-OATA-INPUT.
50520
                                                                                                                         C98970
           CHK-WUC.
                                                                                                                         C98970
50600
                 IF WUC-2-DIGIT IS NOT EQUAL TO WUC2 GO TO COPY-REC. MOVE ZERO TO CNT.
                                                                                                                         C98970
50610
51000
                                                                                                                         C98970
           CHK-TAB-1.
51010
                 A00 1 TO CNT.

MOVE TABLE=1 [CNT] TO WUC-TEMP.

IF WUC 1S LESS THAN WUC-TEMP GO TO END-CHK-TAB-1.

IF WUC 1S EQUAL TO WUC-TEMP GO TO DELETE-REC.

IF CNT IS LESS THAN NO-TAB-1 GO TO CHK-TAB-1.
51020
                                                                                                                         C98970
                                                                                                                         C98970
51030
51040
                                                                                                                         C98970
                                                                                                                         C98970
51050
                                                                                                                         C98970
51060
51070
           ENO-CHK-TAE-1
                                                                                                                         C98970
                  MOVE ZENO TO CHT.
                                                                                                                         C98970
51080
           CHK-TAB-2.
51100
                                                                                                                         C98970
                 ADD 1 TV CNT.

MOVE TABLE-2 [1, CNT] TO WUC-TEMP.

IF WUC 1S LESS THAN WUC-TEMP GO TO COPY-REC.

IF WUC 1S EQUAL TO WUC-TEMP 00 TO MOVE-WUC.

IF CNT 1S LESS THAN NO-TAB-2 GO TO CHK-TAB-2.
51110
                                                                                                                         C98970
51120
                                                                                                                         C98970
51130
                                                                                                                         C98970
51140
                                                                                                                         COAGTO
51150
                                                                                                                         C98970
51160
                  GO TO COPY-REC.
           OELETE-REC.
A00 1 T) REC-DROP.
51200
                                                                                                                         COROTA
51210
                                                                                                                         C98970
                  GO TO READ-DATA-INPUT.
51220
                                                                                                                         C98970
                                                                                                                         C98970
51310
                 MOVE TABLE-2 [2, CNT] TO WUC. ADD 1 TO REC-CHNG.
51320
                                                                                                                         C98970
           GO TO CUPY-REC.
51330
                                                                                                                         C98970
52000
                                                                                                                         C98970
                 COMPUTE CNT > REC-PASS - REC-PASS / 60 + 60.
52010
                                                                                                                         C98970
52020
                   IF CNT IS EQUAL TO ZERO GO TO CFA.
                                                                                                                         C98970
           NINE-FILL.
52100
                                                                                                                         C98970
                  WRITE DATA-OUT-REC FROM NINES.
52110
                                                                                                                         C98970
                 AOO 1 10 CNT.
1F CNT IS LESS THAN 60 GO TO NINE-FILL.
52120
                                                                                                                         C98970
52130
                                                                                                                         C98970
52200
                                                                                                                         C98970
                 MOVE REC-READ TO TEMP-NO,
DISPLAY: REC-READ: TEMP-NO UPON CONSOLE,
MOVE REG-PASS TO TEMP-NO.
OISPLAY: REC-PASS: TEMP-NO UPON CONSOLE,
MOVE REU-CHNG TO TEMP-NO.
DISPLAY: REC-CHNG: TEMP-NO UPON CONSOLE,
MOVE REC-CHORD TO TEMP-NO,
DISPLAY: REC-CHORD: TEMP-NO UPON CONSOLE,
OISPLAY: REC-OROP: TEMP-NO UPON CONSOLE,
OISPLAY: REC-OROP: TEMP-NO UPON CONSOLE,
OISPLAY: REC-DAPT: UPON CONSOLE,
DATA-OUT-FILE, TABLE-2-FILE, OATA-IN-FILE, CON-FILE,
DATA-OUT-FILE, MSG-FILE.
52210
52220
                                                                                                                         C98970
52230
                                                                                                                         C98970
52240
                                                                                                                         C98970
52250
                                                                                                                         C98970
52460
52270
                                                                                                                         C98970
52280
                                                                                                                         C98970
52290
52292
                                                                                                                         C98970
          DATA-OUT-FILE, MSG-FILE.
GOBACK.
CHECK-WUC-LATA.
52294
                                                                                                                         C98970
52300
54000
                                                                                                                         C98971
54010
54100
                 MOVE ZERO TO CHT.
                                                                                                                         C98970
           CWOA.
                                                                                                                         C98970
                 ADD 1 TO CNT.
MOVE TABLE-2 C1, CNT3 TO WUC-TEMP.
MOVE ZERO TO KNT.
54110
                                                                                                                         C98970
54120
                                                                                                                         C98770
54130
                                                                                                                         COROTA
54200
           CWOB.
                                                                                                                         C98970
                 AOD 1 TJ KNT.
54210
                                                                                                                         C98970
                 IF TABL: -1 [KNT] IS GREATER THAN WUC-TEMP 60 TO CWDC.

IF TABLE-1 [KNT] IS EQUAL TO WUC-TEMP MOVE MSG-1 TO FILLER-A,
PERFORM BAO-DATA.
54220
                                                                                                                         C98970
54230
54235
                                                                                                                         C98970
                                                                                                                         C98970
54240
54300
                  IF KNT IS LESS THAN NO-TAB-1 GO TO CWOB.
                                                                                                                         C98970
           CWOC.
                 F CNT IS LESS THAN NO-TAB-2 GO TO CWDA.
54510
                                                                                                                         C98970
54320
                                                                                                                         C98970
54400
54410
           CWOO.
                                                                                                                         C98970
                 AGO 1 TO CNT.
MOVE TABLE-2 [2, CNT] TO WUC-TEMP.
MOVE ZE.10 TO KNT.
                                                                                                                         C98970
54420
                                                                                                                         C98970
54430
54500
                                                                                                                         C98970
           CWOE .
                IO 1 TO KNT.

IF TABLE-1 [KNT] IS GREATER THAN WUC-TEMP GO TO CWDH.

IF TABLE-1 [KNT] IS EQUAL TO WUC-TEMP GO TO CWDF.

IF KNT IS LESS THAN NO-TAB-1 GO TO CWDE.
54510
                                                                                                                         C98970
54515
                                                                                                                         C98970
54520
                                                                                                                         C98970
54530
                                                                                                                        C98970
```

```
54535 CWOH. MOVE ZE 10 TO KNT.
                                                                                                                                                                                                                                                                                                                                                                          C94970
     54540
54550 CWU6.
ADD 1 TO KNT.
                                                                                                                                                                                                                                                                                                                                                                           C98970
                                                                                                                                                                                                                                                                                                                                                                           C98970
       54560
54565
54570
                                                           IF TABL-2 [1, KNT] IS GREATER THAN MUC-TEMP 00 TO 8-D-A.

IF TABL-2 [1, KNT] IS EQUAL TO MUC-TEMP 00 TO CMDF.

IF KNT IS LESS THAN NO-TAB-2 00 TO CMD8.
                                                                                                                                                                                                                                                                                                                                                                            C98970
       54580
       54585 8-D-A.
54580 MOVE MS -2 TO FILLER-A.
                                                                                                                                                                                                                                                                                                                                                                          C98970
      54600
54610
54620
                                     BAU-DATA: WIG-TEMP TO WUC-MSG. WRITE FUG-REC.
ADD 1 TO NO-ERRORS.
                                                                                                                                                                                                                                                                                                                                                                          C98970
C98970
##ITE PIGENELL
ADD 1 TO NO-ERRORS.
54700
ADD 1 TO NO-ERRORS.
54700

IF CNT IS LESS THAN NO-TAB-2 © TO CWOD.
54800
MOVE ZEIO TO KNT.
54800
ADD 1 TO KNT.
54810
IF WUC-TEMP IS EQUAL TO TABLE-1 (CNT) MOVE MSG-3 TO
FILLEN-... PERFORM BAD-DATA.
1F CNT 'S LESS THAN NO-TAB-1 © TO TAB-1-DUP.
54810
ADD 1 TO KNT.
54910
HOVE ZERO TO KNT.
54910
ADD 1 TO KNT
                                                                                                                                                                                                                                                                                                                                                                          C98970
       54430
                                                                                                                                                                                                                                                                                                                                                                           C98970
                                                                                                                                                                                                                                                                                                                                                                            C98970
                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                                                                                                         C98970
   550100 MOVE 1 TO CNT.

55010 CHK-LHS.

55020 MOVE TABLE-2 (2, CNT) TO WUC-TEMP.

55030 MOVE CN, TO KNT.

55040 CHK-LHSA.

50060 1 TO KNT.

1F TABLE-2 (2, KNT) IS EQUAL TO WUC-TEMP MOVE MSG-S TO FILEE-., PERFORM BAD-DATA,

1F KNT 'S LESS THAN NO-TAB-2 GO TO CHK-LHSA.
                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                        C98970
PERFORM BAD-DATA,

1F KNT 'S LESS THAN NO-TAB-2 00 TO CHK-LMSA,

55000 ADD 1 TO CNT.

55000 IF CNT & LESS THAN NO-TAB-2 00 TO CHK-LMSA,

56000 END-CWD, E:1T.

/* PLACE COB'OL SOURCE WEFORE THIS CARD

//CHB.TFGIN DU **SPACE>[CYL,[1,1]]

00000 GET TFG WANG

010001 014999 REP'ACE

TFG DT02 11 0202080

280 74

**END
                                                                                                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                                                                                                        C98970
C98970
C98970
                                                                                                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                                                                        . 1440 CDS
C98970'T
 2 10010L02000
PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

6.6 PREPROCESSOR PROGRAMS

6.6.1 PREPROCESSOR FORMATTER

```
//C9897U JOH
//C9897U EXEC
                       01, I G. WANG 1, PRTY>02, TYPRUN>HOLD P9655L, TIME>04, ACCT>035323007
                       //CHG.TU12
                                                                                                             CT12/13 I
                                                                                                              T12
 //CHG.TU14
                                                                                                             CT14
 //CHG. TU22
                                                                                                             CT22/23
                                                                                                             C722
                                                                                                             CT24
 //CHG.TU24
                                                                                                              T24
D25-0UT
                       DU U5N3+P-9897407+5PACE>[CYL,6010+001]]

04 +5PACE>[CYL,11+1]
//CHG. TU25
          INPUT DU +.SPACE>[CYL,[010.00]]
INPUT DU +.SPACE>[CYL,[1:1]]
CUMDINE CUMPILE G. WANG.

DATE-WRITIEN: 25 MAK 72.

REMARKS. PRUGRAM NAME- DATA BANK PHASE II -SUM OF FLIGHT HOURS,
SORIIES AND LANUINGS IN TYPE 3 AND TYPE 4 RECORDS.

ENVIRONMENT DIVISION.
COMETICIALTING RECOTTOR.
                                                                                                               1440 CD5
 //CHG. INPUT
 00000
                                                                                                                 C98970
01040
                                                                                                                  C98970
U1U60
                                                                                                                  C98970
02000
                                                                                                                  C98970
           CUNFIGURATION SECTION.
50URCE-COMPUTER. IBM-360.
00JECT-COMPUTER. 1BM-360.
 02010
                                                                                                                  C98970
02020
                                                                                                                  C98970
 02030
                                                                                                                  C98970
02110
           INPUT-OUTPUT SECTION.
FILE-CONTROL.
                                                                                                                  C98970
                 SELECT INFILE
02180
                                                               ASSIGN TO UT-5-TU12
                                                                                                                  C98970
                 RESLRVE 5 ALTERNATE AREA. SELLCI UUTBANK-FILE
                                                                                                                  C98970
02130
 02140
                                                               ASSIGN TO UT-5-1U22
                                                                                                                  C98970
                 RESERVE 5 ALTERNATE AREA. SELECT NCO-KP-FILE
02150
                                                                                                                  C98970
U210U
                                                               ASSIGN TO UT-S-TU25
                                                                                                                  C98970
                RESERVE 1 ALTERNATE AREA.
SELECT SG-FILE
RESERVE 5 ALTERNATE AREA.
SELECT HSG-FILE
U217U
U218U
                                                               A5516N TO UT-5-1U24
                                                                                                                  C98970
02190
                                                                                                                  C98970
02200
                                                               ASSIGN TO UT-S-TU14
                                                                                                                  C98970
02210
                       RESERVE 5 ALTERNATE AREA.
                                                                                                                  C98970
          DATA DIVISION.
FILE SECTION.
10000
                                                                                                                  C98970
10010
                                                                                                                  C98970
          FU INFILE
RECURDING MODE IS F
BLOCK CUNTAINS SO RECORDS
RECURD CONTAINS 50
11100
                                                                                                                  C98970
11120
                                                                                                                  C98970
11130
                                                                                                                  C98970
11140
11150
                 RECURU CONTAINS 50
LABLE HECORDS ARE OMITTED
                                                              CHARACTERS
                                                                                                                  C98970
                                                                                                                  C98970
                 DATA RELORDS ARE IN-REC. IN-REC SYNC.
11160
11200
          01
                                                                                                                  C98970
                 02 FILLEN
OUTBANK-FILL
11210
                                                     PICTURE XESU J.
                                                                                                                  C98970
12100
          Fυ
                                                                                                                  C98970
                 RECURUITIG MODE 15 F
BLOCK CUNTAINS 40 RECORDS
RECURU CONTAINS 70
                                                                                                                  C98970
12130
                                                                                                                  C98970
12140
                                                               CHARACTERS
                                                                                                                  C98970
12150
                 LABEL HECORDS ARE OMITTED DATA RECURDS ARE OUT-REC.
                                                                                                                  C98970
12160
                                                                                                                  C98970
                 OUT-REC SYNC.
12200
          01
                                                                                                                  C98970
                 02 FILLER
HCD-KY-FILE
12210
                                                     PICTURE XI 70 ).
          FD
                                                                                                                  C98970
13120
                 RECURULING MODE 15 F
HLOCK CUNTAINS 25 RECORDS
                                                                                                                  C98970
                                                                                                                  C98970
                HE CURD CONTAINS TO
LAHEL HECOMUS ARE OMITTED
DATH HECOMOS ARE SN-COUNT.
SN-COUNT SYNC.
13140
                                                             CHARACTERS
                                                                                                                  C98970
                                                                                                                 C98970
C98970
13160
                                                                                                                 C98970
                 UZ FILLER
13210
                                                     PICTURE XE703.
                                                                                                                 C98970
          FD
14100
                                                                                                                 C98970
                SG-FILE
RECOPUING MODE 15 F
BLOCK CUNTAINS 40 RECORDS
RECURD CONTAINS 70
LABEL RECORDS ARE OMITTED
DATA RECORDS ARE 3G-REC.
14120
                                                                                                                 C98970
14130
14140
14150
                                                                                                                  C98970
                                                              CHARACTERS
                                                                                                                 C98970
C98970
14160
                5G-REC SYNC.
02 FILLER
N5G-FILE
14200
          01
                                                                                                                 C98970
14210
                                                     PICTURE XE70].
                                                                                                                 C98970
15100
          FU
                                                                                                                  C98970
                NSG-FILE
RECORDING MODE IS F
BLOCK CUNTAINS 40 RECORDS
RECORD CONTAINS 70
LABEL RECORDS ARE OMITTED
DATA RECORDS ARE NSG-REC.
15120
                                                                                                                 C98970
15130
                                                                                                                 C98970
15140
                                                              CHARACTER5
                                                                                                                 C98970
15150
                                                                                                                 C98970
15160
                                                                                                                 C98970
15200
                 NSG-PEC SYNC.
                                                                                                                 C98970
15210
                 02 FILLER
                                                     PICTURE XE70 3.
50000
          WORKING-STORAGE SECTION.
                                                                                                                 C98970
30230
          01
                NINE SYNC.
                                                                                                                 C98970
30240
                                               PICTURE XE 25 1
                                                                      VALUE
30250
                                                  C98970
```

```
PICTURE XE 25 J
               U2 FILLER
                                                                                                     C98970
30260
                                                               VALUE
                                             :9999999999999999999999999
                                                                                                     C98970
30270
                                          PICTURE X[ 20 ] VALUE
              02 FILLER
                                                                                                     C98970
30280
                                    1999999999999999999
                                                                                                     C98970
30290
        01 RECORUS-READ
01 RECORUS-PASS
01 REC-1-CNT
30310
                                                                                                     C98970
30320
                                                                                                     C98970
                                                                                                     C98970
30330
30340
               HEC-3-CNT
                                                                                                     C98970
                                                                                                     C98970
30350
         01
               REC-4-LNT
               SN-TOI-CHT
                                                                                                     C98970
                                                                                                     C98970
30360
30370
         01
               EH-LH!
              SORTIES-CHT
                                                                                                     COAGTO
                                                                                                     C98970
30380
               LANUINGS-CNT
         01
                                                                                                     C98970
               KOUNT
         01
01
                                                                                                     C98970
30400
                                                                                                     C98970
               SGCNT
30410
30420
         01
               HSGLNI
                                                                                                     C98970
                                                                                                     C98970
30500
         01
              SG-CNT
                                                       SYNC VALUE ZERO.
SYNC VALUE ZERO.
SYNC VALUE ZERO.
SYNC VALUE ZERO.
30510
               NSG-CNT
                                    PICTURE 9[6]
                                                                                                     C98970
                                                                                                     C98970
30520
         01
               SG-HCNT
                                    PICTURE 9[7]
PICTURE 9[6]
PICTURE 9[7]
30530
               NSG-RCNI
                                                                                                     C98970
30540
         01
              RI-G-CNT
R3-G-CNT
                                                                                                     C98970
                                                        SYNC VALUE
                                                                                                     C98970
         01
30550
              R4-G-CNT
TEST-A SYNC.
02 SN-A
02 WK-A
                                    PICTURE 9[7]
                                                       SYNC VALUE ZERO.
                                                                                                     C98970
30560
                                                                                                     C98970
33000
         01
                                                                     VALUE SPACE.
33010
                                               PICTURE X[8]
PICTURE X[3]
                                                                                                     C98970
                                                                                                     C90970
33020
                                                                                                     C98970
               TEST-B SYNC.
33100
         01
                                                                     VALUE SPACE.
               02 MK-R
                                               PICTURE XEST
33110
                                                                                                     C98970
                                                                                                     C98970
33120
              IN-TEST SYNC.
02 MUS-IN
02 SH-IN
         01
                                                                                                     C98970
39000
                                               PICTURE XEST.
                                                                                                     C98970
39010
                                               PICTURE X[8].
PICTURE X[3].
PICTURE X.
                                                                                                     C98970
39U20
                    WK-IN
WUC-1-IN
39030
                                                                                                     C98970
                                                                                                     C98970
30035
               02
                    FILL-A
                                               PICTURE XC113
                                                                                                     C98970
               02
39040
                                               PICTURE S9[4].
PICTURE X[3].
                                                                                                     C98970
39050
               02 FH-IN
               02 FILL-B
                                                                                                     C98970
39060
                                               PICTURE S9[4].
PICTURE S9[4].
PICTURE X(5].
39070
                    SURTIES-IN
                                                                                                     C98970
39080
               02
                    LANUINGS-IN
                                                                                                     C98970
                   FILL-C
39090
                                                                                                     C98970
                   TYPE-IN
                                               PICTURE XEIJ.
39100
                                                                                                     C98970
                                               PICTURE XE 1 1.
39110
               02
                                                                                                     C98970
        01
               REC-TYPL-3 SYNC.
                                                                                                     C98970
                                               PICTURE X[5].
PICTURE X[8].
PICTURE X[3].
PICTURE X[12].
                   MUS-3
40010
               02
                                                                                                     C98970
               02
40020
                   SN-3
                                                                                                     C98970
40030
                   WK-3
                                                                                                      C9897U
               02
                   FLD-3
40040
               02
                                                                                                     C90970
                                               PICTURE X[4].
PICTURE X[4].
PICTURE X[4].
PICTURE X[4].
PICTURE X[5].
                    LAHOR-3
40u50
               02
                                                                                                     C98970
40060
               02
                    AIE-3
                                                                                                     C98970
                   NORM-3
40070
               02
                                                                                                     C98970
                   NOHS-3
UNIT-ATC-3
40080
                                                                                                     C989711
40090
               02
                                                                                                     C90970
              02 TYPE-3
02 REC-3-HOLD
REC-TYPE-4 SYNC.
                                                PICTURE X[1].
40100
                                                                                                     C98970
40110
                                               PICTURE XL211.
                                                                                                     C98970
         01
40200
                                                                                                     C98970
              02 MUS-4
02 SH-4
02 WK-4
                                               PICTURE XEST.
PICTURE XEST.
PICTURE XEST.
                   MUS-4
                                                                                                     C98970
40220
                                                                                                     C98970
40230
                                                                                                     C98970
                   FLD-4A
FLD-4A
TYPE-4
                                               PICTURE X[12].
PICTURE X[4].
PICTURE X[16].
PICTURE X[1].
40240
               02
                                                                                                     C98970
              02
                                                                                                     C98970
40260
                                                                                                     C98970
40270
               02
                                                                                                     C98970
                    REC-4-HOLD
                                               PICTURE XE 21 J.
40280
                                                                                                     C98970
              REC-1-HOLD SYNC.
40400
         01
                                               PICTURE S9[4].
PICTURE S9[6].
PICTURE S9[5].
PICTURE S9[5].
40410
              02
02
                                                                                                     C98970
                   FH-SUM-HOLD
SORTIES-SUM-HOLD
LANUINGS-SUM-HOLD
40420
                                                                                                     C98970
40430
               02
                                                                                                     C90970
               02
40440
                                                                                                     C98970
40450
                   RCD-MK-HOLD
                                               PICTURE X
                                                                     VALUE Is:.
                                                                                                     C98970
              SN-TOTAL SYNC.
02 CAR-CONTROL
02 FH-TOT
40600
         01
                                                                                                     C98970
                                               PICTURE X
PICTURE ZZZZZ9.
40610
                                                                     VALUE SPACE.
                                                                                                     C98970
40620
                                                                                                     C98970
                    FILLER
                                               PICTURE X
PICTURE ZZZZ9.
                                                                     VALUE SPACE.
40630
               02
                                                                                                     C98970
                    SURTIES-TOT
40640
               02
                                                                                                     C98970
                                               PICTURE X
PICTURE X
PICTURE ZZZZ9
PICTURE ZZZZ9
PICTURE ZZZZ29
PICTURE X
VALUE SPACE
VALUE SPACE
VALUE SPACE
                   FILLER
LANDINGS-TOT
40650
                                                                                                     C98970
40060
               02
                                                                                                     C98970
                   FILLER
TYPE-1-TOT
40070
                                                                                                     C98970
40680
               02
                                                                                                     C98970
                   FILLER
TYPL-3-TOT
FILLER
+0690
                                                                                                     C98970
40700
                                               PICTURE ZZZZZZ9.
PICTURE X VALUE SPACE.
               02
                                                                                                     C98970
                                               PICTURE X
PICTURE ZZZZZZZO.
VALUE SPACE.
40710
                                                                                                     C98970
40720
               02
                    TYPL-4-TOT
                                                                                                     C98970
                   FILLER
               02
40730
                                                                                                     C98970
40740
                    SN-10T
                                               PICTURE XEAJ.
                                                                                                     C98970
40750
               02
                    FILLER
                                               PICTURE X
PICTURE ZZZZZO.
                                                                     VALUE SPACE.
                                                                                                     C98970
40760
                                                                                                     C98970
```

```
PICTURE X
PICTURE ZZZZZ9.
PICTURE X(5)
40770
                               FILLER
                                                                                                            VALUE SPACE.
                                                                                                                                                             C98970
                       02 N5G-TOT
02 REC-KP-TOT
RCO-TOTALS SYNC.
02 FILLER
                                                                                                                                                             C98970
C98970
40780
40790
                                                                                                            VALUE SPACE.
40800
               01
 40810
                                                                          PICTURE K
                                                                                                            VALUE SPACE.
                                                                                                                                                             C98970
40820
                               RECUROS-INPUT
                                                                          PICTURE ZZZZZZZO.
PICTURE K VALUE SPACE.
                       02
                               FILLER
                       02
                                                                                                                                                             C98970
40840
                              REC-3-4-OUT
                                                                          PICTURE ZZZZZZZO.
40845
                       02
                                                                          PICTURE X
PICTURE ZZ9.
                                                                                                            VALUE SPACE.
                                                                                                                                                             C98970
                               SN-OUT
                                                                                                                                                             C98970
40850
                                                                          PICTURE K. V
40860
                       02
                               FILLER
                                                                                                            VALUE SPACE.
                                                                                                                                                             C98970
                       02
40865
                               56-6101
                                                                                                                                                             C98970
                               FILLER
NSG-GTOT
                                                                          PICTURE X
PICTURE ZZZZZZO.
                                                                                                            VALUE SPACE.
                                                                                                                                                             C98970
C98970
40870
                       02
02
40875
                                                                         PICTURE ZZZZZZY.

PICTURE X VALUE SPACE.

PICTURE ZZZZZZY.

PICTURE XC101 VALUE SPACE.
                              FILLER
RI-G-TOT
FILLER
 40800
                                                                                                                                                              C98970
40890
                       02
                                                                                                                                                             C98970
40900
                       02
                                                                                                                                                              C98970
                               R3-6-TOT
40910
                       02
                                                                                                                                                             C98970
                               FILLER
                                                                                                                                                              C98970
              02 FILLER
02 R4-U-TOT
02 FILLER
01 SN-TOT-ULNK SYNC.
02 FILLER
PROCEOURE OIVISION.
40930
                                                                                                                                                             C98970
40940
                                                                                                                                                              C98970
40980
                                                                                                                                                             C98970
                                                                          PICTURE XE703 VALUE SPACE.
                                                                                                                                                              C98970
50000
                                                                                                                                                             C98970
              BANKI.

OPEN INPUT INFILE OUTPUT OUTBANK-FILE.
                                                                                                                                                              C98970
50010
50020
                                                                                                                                                             C98970
                       OPEN QUIPUT RCO-KP-FILE.

OPEN QUIPUT SG-FILL NSG-FILE.

SUBTRACT 1 FROM SN-TOT-CNT.
50030
                                                                                                                                                             C98970
50035
                                                                                                                                                             C98970
C98970
              READ-IN.
MOVE TEST-A TO TEST-B.
 50100
                                                                                                                                                              C98970
50110
                                                                                                                                                             C98970
                       READ INFILE INTO IN-TEST
AT ENO GO TO RI CORD-KEEP.
50120
                                                                                                                                                              C98970
50130
                                                                                                                                                              C98970
                       AOD 1 TO RECORDS-READ.

MOVE SN-IN TO SN-A.

MOVE WK-IN TO WK-A.
50135
                                                                                                                                                             C98970
50140
                                                                                                                                                              C98970
50150
                                                                                                                                                             C98970
              COMPARESN.

IF SN-A EQUAL SN-B GO TO COMPARE-WK.

MOVE SG-CNT TO SU-TOT.

MOVE NSG-CNT TO NSA-TOT.

MOVE SH-B TO SN-TOT.
                                                                                                                                                              C98970
50210
                                                                                                                                                             C98970
20515
                                                                                                                                                             C98970
50214
50220
                                                                                                                                                             C98970
                     MOVE SIJER TO SNETOT.

MOVE FH-CRIT TO FH-10T.

MOVE SURTIES-CTIT TO SORTIES-TOT.

MOVE ALMOINGS-CRIT TO LAMDINGS-TOT.

MOVE REC-I-CRIT TO TYPE-I-TOT.

MOVE REC-I-CRIT TO TYPE-I-TOT.

MOVE REC-I-CRIT TO TO TYPE-O-TOT.

ADD REC-I-CRIT TO RI-G-CRIT.

ADD REC-I-CRIT TO RI-G-CRIT.

ADD REC-I-CRIT TO RI-G-CRIT.

ADD REC-I-CRIT TO RI-G-CRIT.

MRITE SH-COUNT FROM SN-TOTAL.

AOD I TO SN-TOT-CRIT.

IF TYPE-IN EQUAL 19: GO TO RECORD-KEEP.

MOVE ZEROS TO FH-CRIT SORTIES-CRIT LANDINGS-CRIT.

MOVE ZEROS TO FH-CRIT SORTIES-CRIT LANDINGS-CRIT.

MOVE ZEROS TO SU-CIT NSG-CRIT

REC-I-CRIT

REC-I-CRIT

REC-I-CRIT

REC-I-CRIT

REC-I-CRIT

REC-I-CRIT

REC-I-CRIT
                                                                                                                                                             C98970
50230
                                                                                                                                                             C98970
50240
                                                                                                                                                             C98970
50250
                                                                                                                                                             C98970
50252
                                                                                                                                                             C98970
50253
                                                                                                                                                             C98970
50254
50256
                                                                                                                                                             C98970
50257
                                                                                                                                                            C98970
50258
                                                                                                                                                             C98970
50260
                                                                                                                                                             C98970
50270
                                                                                                                                                             C98970
                                                                                                                                                             C98970
50272
                                                                                                                                                            C98970
C98970
50280
50490
50310
                                                                                                                                                            L98970
50320
                                                                                                                                                            C98970
C98970
                                                     REC-4-CNT.
                                                                                                                                                            C98970
50340
                               GO TO COMPARE-NK-A-1.
50500
              COMPARE-WK.

IF WK-A GREATER THAN WK-B GO TO COMPARE-WK-A-1.
GO TO TYPE-3.
51000
51010
51020
                                                                                                                                                             C98970
                                                                                                                                                            C98970
              COMPARE-WK-A-1.

IF TYPE-IN EQUAL :1: GO TO TYPE-1-PROC.
51030
                                                                                                                                                             C98970
            IF TYPE-IN EQUAL 11: GO TO TYPE-1-PROC.

COMPARE-TYPL-3.

IF TYPE-IN EQUAL 13: GO TO TYPE-3-1.

IF TYPE-IN GREATER THAN 13: GO TO TYPE-4-1.

GO TO READ-IN.

TYPE-1-PROC.

ADD 1 TO REC-1-CNT.

IF FH-IN LESS THAN ZERO GO TO TYPE-1-PROC-A.

ADD SORTIES-IN TO SORTIES-CNT.

ADD SORTIES-IN TO SORTIES-CNT.

ADD LANDINGS-IN TO LANDINGS-CNT.

GO 10 TYPE-1-PROC-B.

TYPE-1-PROC-A.

MOVE ZEROS TO FH-HO_D.

TYPE-1-PROC-B.

MOVE FH-CNT TO FH-SUM-HOLD.

MOVE LANDINGS-CNT TO LANDINGS-SUM-HOLD.

GO 10 READ-IN.

TYPE-3-I.
                                                                                                                                                             C98970
51040
                                                                                                                                                            C98970
C98970
51050
51060
51070
51080
                                                                                                                                                            C98970
51100
51105
                                                                                                                                                             C98970
51110
                                                                                                                                                             C98970
                                                                                                                                                            C98970
51120
51130
51140
                                                                                                                                                             C98970
C98970
51150
51160
51200
                                                                                                                                                             C98970
                                                                                                                                                            C98970
C98970
C98970
C98970
51202
51210
51230
                                                                                                                                                             C98970
51250
                                                                                                                                                            C98970
              TYPE-3-1.
51300
                      MOVE ZEROS TO FH-HOLD.
51310
                                                                                                                                                            C98970
```

```
MOVE 1N-TEST TO REC TYPE-3.
MOVE REC-1-HOLD TO REC-3-HOLD.
WRITE OUT-REC FROM REC-TYPE-3.
 51320
                                                                                                                           C98970
 51 330
51 340
                                                                                                                           C98970
                                                                                                                           C98970
                   ADD 1 TO REC-3-CNT.
ADD 1 TO RECORDS-PASS.
 51 350
 51 355
                                                                                                                           C98970
                   IF WUC-1-IN EQUAL :0: GO TO SG-OUTPUT.
GO TO NSG-OUTPUT-3.
 51360
                                                                                                                            C98970
 51.570
                                                                                                                           C98970
 52000
                                                                                                                           C98970
                   1F TYPE-1N GREATER THAN :4: GO TO TYPE-9-1.
MOVE 2EROS TO FH-HOLD.
MOVE 1N-TEST TO REC-TYPE-4.
MOVE REC-1-HOLD TO REC-4-HOLD.
 52U10
52U20
                                                                                                                            C98970
                                                                                                                           C98970
 52030
 52040
                                                                                                                           C98970
                   WRITE OUT-REC FROM REC-TYPE-4.
                                                                                                                           C98970
                   ADD 1 TO REC-4-CNT.
ADD 1 TO RECORDS-PAGS.
 52060
                                                                                                                           C98970
 52065
                                                                                                                           C98970
 52070
                   GO TO NSG-OUTPUT-4.
 52100
            TYPE-9-1.
                                                                                                                           C98970
                   IF TYPE-IN EQUAL :9. GO TO RECORD-KEEP.
                                                                                                                           C98970
 52120
                   GO TO READ-IN.
                                                                                                                           C90970
           TYPE-3.

1F TYPE-1N EQUAL :3: GO TO TYPE-3-A.

1F TYPE-1N GREATER HAN :3: GO TO TYPE-4.

GO TO REAU-1N.
 53000
                                                                                                                           C98970
 53010
 53020
                                                                                                                           C98970
 53u30
                                                                                                                           C98970
            TYPE-3-A.

MOVE 1H-TEST TO REC-TYPE-3.

MOVE REC-1-HOLD TO FEC-3-HOLD.

WRITE OUT-REC FROM PEC-TYPE-3.

ADD 1 TO REC-3-CNT.
 53100
                                                                                                                           C98970
 53110
                                                                                                                           C98970
 55120
 53130
                                                                                                                           C98970
 53140
                                                                                                                           C98970
                   ADD 1 TO RECORDS-PASS.

IF WUC-1-IN EQUAL IN 60 TO SG-OUTPUT.
 53145
                                                                                                                           C98970
 53150
                                                                                                                           C98970
 53160
                   GO 10 NSG-OUTPUT-3.
                                                                                                                           C98970
 53400
            TYPE-4.
                  IF TYPE-IN EQUAL 14. GO TO TYPE-4-A. GO TO TYPE-9.
 53410
                                                                                                                           C98970
 53420
                                                                                                                           C98970
 53500
            TYPE-4-A.
                  MOVE IN-TEST TO REC-TYPE-4.

MOVE REC-1-HOLD TO NEC-4-HOLD.

WRITE OUT-REC FROM FEC-TYPE-4.

ADD 1 TO REC-4-CNT.

ADD 1 TO RECORDS-PASS.

GO TO NSG-OUTPUT-4.
 53510
                                                                                                                           COAGTO
                                                                                                                           C98970
 53530
                                                                                                                           C98970
 53540
                                                                                                                           C98970
 53545
53550
                                                                                                                           C98970
                                                                                                                           C98970
           TYPE-9.

IF TYPE-1N EQUAL :91 GO TO RECORD-KEEP.

GO TO READ-1N.
 53900
53910
                                                                                                                           C98970
 53920
                                                                                                                           C98970
            SG-OUTPUT.

WRITE SG-REC FROM FEC-TYPE-3.

ADD 1 TU SG-CNT SG-RCNT.

GO TO READ-1N.

NSG-OUTPUT-3.
54000
                                                                                                                           C98970
54010
                                                                                                                           C98970
 54020
                                                                                                                           C90970
54050
                                                                                                                           C98970
 54100
                                                                                                                           C90970
                  WRITE MSG-REC FROM FEC-TYPE-3.
ADD 1 TO MSG-CNT MSG-RCNT.
54110
54120
                                                                                                                           C98970
                         GO TO READ-IN.
                                                                                                                           C98970
            NSG-OUTPUT-4.
54200
                                                                                                                           C98970
                  MRITE NSG-REC FROM PEC-TYPE-4.
ADD 1 TO NSG-CNT NSG-RCNT.
GO 10 READ-1N.
54210
                                                                                                                           C98970
54220
54250
                                                                                                                           C98970
           RECORD-KELP.

MOVE SIL-TOT-BLNK TO SN-TOTAL.

SUBTRACI 1 FROM RECORDS-READ.

MOVE RECORDS-READ TO RECORDS-INPUT.

MOVE RECORDS-PASS TO REC-3-4-OUT.
55000
                                                                                                                           C98970
55060
                                                                                                                           COAGTO
 55065
                                                                                                                           C98970
55070
                                                                                                                           C98970
55080
                                                                                                                           C98970
                  MOVE RECORDS-PASS TO REC-3-4-
SUBTRACT 2 FROM SN-TOT-CNT.

MOVE SN-TOT-CNT TO SN-OUT.

MOVE SG-RCNT TO SG-GTOT.

MOVE NSG-RCNT TO NSG-GTOT.

MOVE R1-G-CNT TO R1-G-TOT.

MOVE R3-G-CNT TO R3-G-TOT.

MOVE R4-G-CNT TO R4-G-TOT.
SSUAS
                                                                                                                           C90970
55UA7
                                                                                                                           COAGTO
55100
                                                                                                                           C98970
55110
                                                                                                                           C98970
55120
                                                                                                                          C98970
55130
                                                                                                                           C98970
55140
                                                                                                                           C98970
                   MOVE HOU-TOTALS TO SN-TOTAL.
55290
                                                                                                                          C98970
55300
                  WRITE SH-COUNT FROM SN-TOTAL.
ADD 2 TO SN-TOT-CNT.
                                                                                                                           C98970
55310
                                                                                                                          C98970
           GO TO BLOCK-CHECK.
BLOCK-CHECK.
                                                                                                                          C98970
62000
                  COMPUTE KOUNT > RECORDS-PASS - EERECORDS-PASS / 403 + 403.
62010
                                                                                                                          C98970
           WRITE OUT-REC
62040
                                                                                                                           C98970
                                               FROM NINE.
62050
                                                                                                                          COROTO
                  ADD 1 TO KOUNT.
IF KOUNT 15 LESS THAN 40 GO TO LOOP3.
62060
                                                                                                                          C98970
62070
                                                                                                                          C98970
62100
           BLOCK-CHECK-2
                                                                                                                          C98970
                  COMPUTE KNT > SN-TOT-CNT - [[SN-TOT-CNT / 25] + 25].
62115
                                                                                                                          C98970
           LOOP4.
62150
                                                                                                                          C98970
          WRITE SM-COUNT FROM NINE,
ADD 1 TO KNT.

IF KNT IS LESS THAN 25 GO TO LOOP4.

BLOCK-CRECK-3.

COMPUTE SGCNT > (G-RCNT - [[SG-RCNT / 40] + 40].
62140
62150
                                                                                                                          C98970
62160
                                                                                                                          C98970
62200
62210
                                                                                                                          C98970
          LOOPS.
```

```
C98970
                                 SG-REC FROM NINE.
 62230
                     AND 1 TU SGCNT.
IF SGUNT IS LESS THAN 40 GO TO LOOPS.
62240
62250
             IF SGUNT
                                                                                                                                          C98970
 62300
                     COMPUTE NSGCNT > NSG-RCNT - EINSG-RCNT / 403 + 403.
                                                                                                                                          C98970
 62310
                                                                                                                                          C98970
             L00P6.
 62320
                                                                                                                                          C98970
                     WRITE NSG-REC FROM NINE.
 62530
                     ADD 1 TO NSGCNT.
IF NSGCNT IS LESS (HAN 40 GO TO LOOPS.
                                                                                                                                          C98970
 62340
                                                                                                                                          C98970
 62350
                                                                                                                                          C98970
 64000
             CLOSE-FILES.
                            CLOSE INFILE
                                                                                                                                          C98970
 64010
                     CLOSE INFILE WITH LOCK,
CLOSE OUTBANK-FILE WITH LOCK.
CLOSE RCD-KP-FILE WITH LOCK.
CLOSE SG-FILE NS'-FILE WITH LOCK.
DISPLAY: BANK IN! RECORDS-READ UPON CONSOLE.
DISPLAY: BONK OUT: RECORDS-PASS UPON CONSOLE.
DISPLAY: EOJ C9897 UPON CONSOLE.
                                                                                                                                          C98970
 64020
                                                                                                                                          C98970
 64030
                                                                                                                                          C98970
 64040
 64110
                                                                                                                                          C98970
 64120
                                                                                                                                          C98970
  64140
 64150
                     GOBACK.
                GOBACK.
PLACE COHOL SOURCE BEFCRE THIS CARD

GIN DU *,5PACE>(CYL,(1+1)]

PLACE TFG DATA BEFORE 1HIS CARD

12 DD DISP>IOLD.*KEPJ.*VOL>SER>+F1.*UN17>T+F1

14 DD DISP>IOLD.*KEPJ.*VOL>SER>+F5.*UN17>T+F3

22 DU DISP>IOLD.*KEPJ.*VOL>SER>+F5.*UN17>T+F5

RIN DI *,5PACE>ITR:*(1+1)]
  //CHG.TFGIN
                                                                                                                                      T12
  // TPR . TU12
  //TPR.TU14
//TPR.TU22
  //TPR.TU24
//TPR.TPRIN
                                      ., SPACE >1 TRF .[1.1]
                         10100702070
  T/P TU25
T/P TU24
T/P TU22
                          10800702070
  T/P
          TU14
                          10400702070
                 2 *0800502050
PLACE T/P CONTROL CARDS BEFORE THIS CARD
           TU12
6.6.2 REFORMATTED SUPPORT GENERAL WUC SORT
                            01:: G. WANG. :.PHTY>02:TYPRUN\HÖLÖ SURT SG X1310
P9622H:W>199: 1ME>03:ACCT>D35323007 22/12 SORT
DU DISP>C:KSEP]:UNIT>CA+F5:2:DEFER].
 //T9897L JUB
//C9897L EXEC
  //CHG.50HIIN
                                                                                                                                    CT22/23 1
                             DSII>+E.9897408.
                                                                                                                                    CT22
CT22
                             VOL>SER>I+F5.A+F5.8+F5.C+F5.D+F5.E+F5.F+F5.G+F5.H+F5.
                             I++>,J+F>,K+F>,L+F>,M+F>,N+F>,O+F>,P+F>,O+F>,R+F>,S+F>,CT22
DCH>ILRECL>U070.ALKSIZE>2800],LAREL>I,NSL,RETPD>001]
// DCB31LRECL30770.RLKSIZE328003,LAREL31.NSL.RETPD30013
//CHG.SORTOUT DU UISP31.PASS3;UNIT31.A+F1.2.DEFER],DSN3+A.9897418, CT12.
// VOL3EP31.F1.A+F1.B+F1.C+F1.D+F1.E+F1.F+F1.G+F1.H+F1. CT12
// I+F1.J+F1.K+F1.L+F1.M+F1.N+F1.O+F1.P+F1.Q+F1.R+F1.S+F1].CT12
DCB35LRECL30070.BLKSIZE328003
DU +.DCB3BLKSIZE300A0.SPACE3ITRK,[1,1]]
SORT F1ELDS31006.008.CH.A.314.003.CH.A.017.005.CH.A. C
049.001.CH.A7.S1ZE3E0200000
  MODS E15>(E15+008+SORTLIB+NJ+E18>[E18+024+SORTLIB+N]
DU +,SPACE) TRK,(1,1)1
 //CHG. TPRIN
         TU12
                 PLACE T/P CONTROL CARDS BEFORE THIS CARD
6.6.3 REFORMATTED NON-SUPPORT GENERAL WUC SORT
                                                          :.PRTY>02.TYPHUN>HOLD SORT NSG X1310
4E>04.ACCT>035323007 22/12 SORT
 //T9897M JOB
//C9897M EXEC
//CHG.SORTIN
                            01:: G, WANG, ::PRTY>02:TYPRUN>HOLD
P9622N,W>199: IME>04.ACCT>D35323007
DU UISP>I.KFEP].UNIT>[A+F5:2:DEFER],
                                                                                                                                    CT22/23 I
                             DSN>+L.9897409.
// DSN>+E.9897409, CT22
// VOL>SERSITEPS.N+F5.8+F5.C+F5.D+F5.E+F5.F+F5.G+F5.H+F5. CT22
// I+F5.J+F5.K+F*.L+F5.M+F5.N+F5.0+F5.F+F5.G+F5.H+F5. CT22
// DCH>ILRECL>0070.RLKSIZE>2800],LAREL>I.NSL.RETPD>002]
//CHG.SORTOUT DD DISP>I.PASSI.NNIT>I.A+F1.2.DEFER1.DSN)+A.9897819. CT12.
// VOL>SERSIT+F1.+F1.B+F1.C+F1.D+F1.F+F1.G+F1.H+F1. CT12
// I+F1.J+F1.K+F1.L+F1.M+F1.N+F1.0+F1.P+F1.Q+F1.R+F1.S+F1.F1.CT12
// DCH>CLRECL>U070.RLKSIZE>2800.D
U-0.DEB>BL.SIZE.SOR0.DSPACE>(THK.[1,1])
SURT F1ELDS>L006.008.CH.A.14.003.CH.A.017.005.CH.A.
049.001.CH.A.3-SIZE>E0700000
MODS E15S(E15.000*SORTLIB*N) E18>(E18.024*SORTLIB*N)
                                                                                                                                    CT22
                                                                                                                                    CT12/13 1
  MODS E15>(E15+008+SONTLIB+N]+E18>(E18+024+SONTLIB+N)
 CT12/13 1
                        R0900702070001001001
         TU120080R110070Z0700010v1001
                 PLACE T/P CONTROL CHROS BEFORE THIS CARD
```

6.6.4 REFORMATTED DATA BANK SORT

6.7 PROGRAMS FOR FREQUENCY ANALYSES

6.7.1 TITLE FORMATTER AND FIVE-DIGIT WUC ANALYSIS

```
//C98970 JOB
                                             I.PRTY>02.TYPRUN>HOLD
                      01. G. WANG
 //C98970 EXEC
 //CHG. TU12
                                                                                                       CT12/13 4
 //CHG. TU14
                                                                                                      CT22/23
//CHG. TU22
 //CHG. TU24
 //CHG. 1U25
          INPUT DU +,SPACES[CYL,[1:13]
COMMINE COMPILE
DATE-WRITTE .. 15 APR 72.
 //CHG. INPUT
                                                                                                        1440 CDS
                                                                          G. WANG.
 00000
                                                                                                           C98970
01040
01050
          REMARKS.
                                                                                                           C98970
01 060
                      MAINTENANCE STUDY PRO
FREQUENCY ANALYSIS.
                                                 PROGRAM 1A.
                                                                                                            C98970
U1U70
                                                                                                           C98970
ULUAD
                              FHEGUENCY OF MORK UNIT CODE REPAIR ACTION.
                                                                                                           C98970
                              (5 DIGIT LEVEL)

COMPUTES FREQUENCY OF SPECIFIC SG-WUC.
FORMAIS FREQUENCIES FOR TITLE.

COMPUTES FREQUENCY OF SPECIFIC WDC.
01090
01100
                                                                                                            C98970
                                                                                                           C98970
01110
                                                                                                           C98970
01120
                                                                                                           C98970
61130
                               THIS REPEATED FOR EACH NON-SG-WUC AND HMC.
                                                                                                           C98970
01140
01150
                              INPUT SURT SEMUENCE WUC, HMC, SENIAL-NO, WEEK.
                                                                                                           C98970
                                                                                                           C98970
02000
          ENVIRONMENT DIVISION.
                                                                                                           -C98970
          ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. IBM-36U.
OBJECT-COMPUTER. IBM-36U.
IMPUT-OUTPUT SECTION.
02010
                                                                                                           C98970
02020
                                                                                                           C98970
02050
02100
                                                                                                           C98970
          FILE-CONTROL.
                                                                                                           C98970
                SELECI IN-FILE-UR
u2120
                                                            ASSIGN TO UT-5-TU12
                                                                                                           C98970
                RESERVE I ALTERNATE AREA.
SELECT IN-FILE-ISC
RESERVE I ALTERNATE AREA.
02150
                                                                                                           C98970
02140
02150
                                                            ASSIGN TO DA-S-DT01
                                                                                                           C98970
C98970
                SELECT OUT-JATA
RESCRUE 1 ALTERNATE AREA.
SELECT GUT-TITLES
RESCRUE 1 ALTERNATE AREA.
SELECT GUT-PHINI-NI
02160
                                                            ASSIGN TO UT-S-TU22
                                                                                                            C98970
02170
                                                                                                           C98970
02180
                                                           ASSIGN TO UT-S-TU14
                                                                                                           C98970
U219U
                                                                                                           C98970
U2200
                                                           ASSIGN TO UT-5-TU24
                                                                                                           C98970
                RESERVE 1 ALTERNATE AREA.
SELLCT OUT-PRINT-ISC
RESERVE 1 ALTERNATE AREA.
02210
                                                                                                           C98970
                                                           ASSIGN TO UT-S-TU25
02220
                                                                                                           C98970
          DATA DIVISION.
10000
                                                                                                           C98970
10010
          FILE SECTION.
                                                                                                           C98970
          FU IN-FILE-DB
BLOCK CONTAINS 40 RECURDS
10100
                                                                                                           C98970
10130
                                                                                                           C98970
               RECOMD CONTAINS TO LABEL RECORDS ARE OMITTED DATA RECORDS ARE IN-REC-D-B.
10140
                                                          CHARACTERS
                                                                                                           C98970
                                                                                                           C98970
10160
               IN-HEC-U-B SYNC. 02 FILLER
10200
          01
                                                                                                           C98970
10210
                                                        PICTURE XE703.
                                                                                                           C98970
                IN-FILE-ISC
                RECORDING MODE IS F
BLOCK CONTAINS 20 RECORDS
11320
                                                                                                           538378
11330
                                                                                                           C98970
                RECORD CONTAINS 80 LABEL RECORDS ARE STANDARD DATA RECORDS AFE IN-REC-ISC.
                                                          CHARACTERS
11340
                                                                                                           C98970
11350
                                                                                                           C98970
11360
11400
11410
12100
                IN-REC-ISC SYNC.
02 FILLER
OUT-DATA
                                                        PICTURE XE 80 1.
                                                                                                           COROTO
                                                                                                           C98970
                RECORDING MODE IS F
BLOCK CONTAINS 23 RECORDS
                                                                                                           C98970
12120
12130
                                                                                                           C98970
                RECORD CONTAINS 130
LAPEL RECORDS ARE OMITTED
DATA RECORDS ARE TAPE-FILE.
                                                          CHARACTERS
12140
                                                                                                           C98970
C98970
12150
12160
                                                        PICTURE XC1303.
                                                                                                            C98970
 12180
                TAPF-FILE
                                   SINC
                OUT-TITLES
                                                                                                           C98970
          FD
13100
                                                                                                           C98970
                RECORDING MODE IS F
BLOCK CONTAINS 23 RECORDS
RECORD CONTAINS 130
13120
                                                                                                            C98970
13130
                                                          CHARACTERS
                                                                                                           C98970
                LAPEL RECORDS ARE OMITTED
DATA RECORDS APE TAPE-FILE-TI
TAPE-FILE-TI SYNC
                                                                                                           C98970
13150
                                                                                                            C98970
13160
                                                                                                           C98970
13170
                                                        PICTURE XC1301.
          FD
 14100
                OUT-PHINT-NI
                                                                                                           C98970
```

```
RECORUING MODE 15 F
BLOCK CUNTAINS 15 RECORDS
RECORU CONTAINS 130
LAPLL RECORDS ARE OMITTED
DATA RECORDS AFE NI-DATA.
  14120
  14130
                                                                                                                                                                                                                                                C98970
  14140
14150
14160
                                                                                                                                   CHARACTERS
                                                                                                                                                                                                                                                 C98970
C98970
                                   DATA HECORDS AFE NI-DATA.
NI-DATA SYNC
OUT-PHINT-ISC
RECURUING MODE IS F
BLOCK CONTAINS 15 RECORDS
RECORU CONTAINS 130
LAREL RECORDS ARE OMITTED
DATA RECORDS ARE ISC-DATA,
ISC-DATA SYNC
KING-STOMAGE SECTION.
  14170
                                                                                                                                PICTURE XC1303.
                                                                                                                                                                                                                                                C98970
  15100
                        FU
                                                                                                                                                                                                                                                 C98970
  15120
                                                                                                                                                                                                                                                C98970
  15130
                                                                                                                                                                                                                                                C98970
                                                                                                                                  CHARACTERS
 15140
                                                                                                                                                                                                                                                C98970
                                                                                                                                                                                                                                                C98970
  15160
                                                                                                                                                                                                                                                C98970
                           PICTURE X.
PICTURE X.
PICTURE X.
PICTURE S999.

7 CUR-SN
7 P-WLEK
7 P-FLT-HKS
7 PO-WLC
8 PICTURE S999 COMPUTATIONAL.
9 PICTURE S999 COMPUTATIONAL.
9 PICTURE S999 COMPUTATIONAL.
9 PICTURE S999 VALUE ZERO.
9 PICTURE S999 VALUE ZERO.
9 PICTURE X(8) VALUE SPACE.
9 PICTURE X VALUE SPACE.
9 P
 15170
                                                                                                                               PICTURE XC1303.
                        WORKING-STORAGE SECTION.
77 ISCHRUNAL SYNC
77 WDC-TEMP SYNC
  30000
  30010
                                                                                                                                                                                                                                                C98970
                                                                                                                                                                                                                                                C98970
  30020
  30040
                                                                                                                                                                                                                                                C98970
  30050
                                                                                                                                                                                                                                                C98970
 30060
30070
                                                                                                                                                                                                                                                C98970
C98970
  30080
                                                                                                                                                                                                                                                C98970
 30100
30170
                       77
77
                                                                                                                                                                                                                                                C98970
C98970
  30400
                                                                                                                                                                                                                                                C98970
 30410
30420
                                                                                                                                                                                                                                                C98970
                                                                                                                                                                                                                                                C98970
  304.50
                                                                                                                                                                                                                                                C98970
                                                                                                                                                                                                                                                C98970
  30500
 30510
30520
                                                                                                                                                                                                                                                C98970
                                                                                                                                                                                                                                                C98970
                                 NO-WU-
BF
ONE SYNC
TWO SYNC
POS-WUC COMPUTATIONAL
ISC-TITLE-FLAG SYNC
NI-TITLE-FLAG SYNC
CYNC
  30530
                                                                                                                                                                                                                                                C78970
  30540
                                                                                                                                                                                                                                                C98970
  30550
                                                                                                                                                                                                                                                C98970
  30560
                                                                                                                                                                                                                                                C98970
  30570
                                                                                                                               PICTURE X.
                                                                                                                                                                                                                                                C98970
                                   NI-TITLE-FLAG
NI-LINE-FLAG
ISC-LINE-FLAG
ISC-LINE-FLAG
PAGE-NUMBER-ISC
PAOL-NUMBER-NI
 30580
30590
                                                                                                                               PICTURE X
                                                                                                                                                                                                                                               C98970
C98970
                                                                                                                               PICTURE X.
                                                                                                                              PICTURE X.
PICTURE 599 SYNC VALUE ZERO.
PICTURE 599 SYNC VALUE ZERO.
  30000
                                                                                                                                                                                                                                                C98970
  30010
                                                                                                                                                                                                                                                C98970
  30015
                                                                                                                                                                                                                                               C98970
                                   HO-HEC-PRINT-ISC
NO-REC-PRINT-N'
NO-REC-TAPE
NO-REC-TAPE-T1
                                                                                                                              PICTURE 9(7) VALUE ZERO.
 30620
30630
                                                                                                                                                                                                                                                C98970
                                                                                                                                                                                                                                                C98970
                                  NO-REC-TAPE-T1
LINE-CNT-1SC CUMPUTATIONAL
LINE-CHIT-NI COMPUTATIONAL
LINE-PAGE COMPUTATIONAL
SUM-INDEX COMPUTATIONAL
TEMP-1NDEX COMPUTATIONAL
TEMP-SGWUC COMPUTATIONAL
NUMBER-SGWUC COMPUTATIONAL
NUCCEPTEU-LINE-RPT SYNC.

PICTURE S999 VALUE ZERO SYNC.
PICTURE S999 VALUE ZERO SYNC.
 30640
30650
                                                                                                                                                                                                                                                C98970
                                                                                                                                                                                                                                                C98970
  30660
                                                                                                                                                                                                                                                C98970
                       77
77
  30070
                                                                                                                                                                                                                                                C98970
  30680
                                                                                                                                                                                                                                                C98970
  30682
                                                                                                                                                                                                                                                C98970
 30684
                                                                                                                                                                                                                                               C98970
 30686
                      77
01
 30088
                                                                                                                                                                                                                                                C98970
 30700
                                                                                                                                                                                                                                               C98970
C90970
 50710
50720
                                                                                                                              PICTURE X[18] VALUE
:J WDC FREQUENCY
                                                                                                                                                                                                                                               C98970
 30730
                                    02 WUL-FREG-RPT OCCURS 21 TIMES
                                                                                                                                                                                                                                               C98970
                                                                                                                              PICTURE ZZZZZ,
PICTURE ZC6J,
PICTURE X VALUE 1#1,
 30740
                                                                                                                                                                                                                                                C98970
                                    02 TOTAL-WDC-FREQ-RPT
                                                                                                                                                                                                                                                C98970
 30760
                                             FILLER
                                                                                                                                                                                                                                               C98970
                                  NO-1SC SYNC.

02 FILLER

02 NO-ISC-AC

02 FILLER
31010
                                                                                                                                                                                                                                               C98970
C98970
                      01
                                                                                                                              PICTURE XX.
 31030
                                                                                                                             PICTURE 5999.
PICTURE XE751.
                                                                                                                                                                                                                                                C98970
 31040
                                                                                                                                                                                                                                               C98970
C98970
                                   ISC-A-C SYNC.
02 FILLER
02 ISC-TN
02 FILLER
02 ISC-WK
 31050
                       01
                                                                                                                             PICTURE XX.
PICTURE XCOJ.
PICTURE XX.
PICTURE 999.
31060
                                                                                                                                                                                                                                                C98970
 31070
                                                                                                                                                                                                                                               C98970
 31080
                                                                                                                                                                                                                                                C98970
                                    02
 31 090
                                                                                                                                                                                                                                              C98970
C98970
                                                                                                                              PICTURE XC651.
                                               FILLER
                                   FILLER SYNC. 02 FILLER OCCURS 36 TIMES.
                      01
 31200
                                                                                                                                                                                                                                              C98970
C98970
 31205
                                                03 ISC-AC TN PICTURE X[8].
03 ISC-AC-WK COMPUTATIONAL PICTURE S999.
 31210
                                                                                                                                                                                                                                                C98970
 31220
                                                                                                                                                                                                                                               C98970
                                   INPUT-DE SYNC.
02 FILLER
02 SERIAL-NO
 31500
                      01
                                                                                                                                                                                                                                               C98970
                                                                                                                             PICTURE XC51.
PICTURE XC61.
PICTURE 999.
PICTURE XC51.
                                                                                                                                                                                                                                              C98970
31310
31320
31330
                                                WEEK
                                    02
                                                                                                                                                                                                                                               C98970
                                    02
                                                                                                                                                                                                                                               C98970
 31 350
                                                FILLER REDIFINES WUC.
                                                                                                                                                                                                                                               C98970
                                               03 WUC-2
03 FILLER
WUC
31360
31370
                                                                                                                             PICTURE XX.
PICTURE XXX.
                                                                                                                                                                                                                                              C98970
                                                                                                                             PICTURE X.
PICTURE XXX.
PICTURE 999.
31 380
31 390
                                   02
                                                                                                                                                                                                                                               C98970
                                               HMC
MA
                                   02
                                                                                                                                                                                                                                               C98970
31400
                                                                                                                                                                                                                                               C98970
31410
31420
                                   05
                                                FILLER
                                                                                                                             PICTURE XC20].
PICTURE X.
PICTURE XC4].
                                                                                                                                                                                                                                               C98970
                                               IDENT
02 FILLER
02 FLT-HRS
                                                                                                                                                                                                                                              C98970
31430
                                                                                                                             PICTURE SOL6 J.
31432
                                                                                                                                                                                                                                               C98970
```

```
02 FILLER
                                                       PICTURE XC 113.
31434
                                                                                                         C98970
          01 REPORT-1D SYNC.
02 FILLER
199897860
                                                                                                         C98970
C98970
C98970
32000
32010
                                                       PICTURE XC503 VALUE
                                          TF7919-02 142-8 1 1/2
PICTURE XC503 VALUE SPACE.
PICTURE XC503 VALUE
32020
               02 FILLER
32030
                                                                                                         C98970
                                                                                                         C98970
32040
                                                                                                         C98970
32050
*0000
          OI NEW-PAGE SYNC.
                                                                                                         C98970
C98970
40010
                    FILLER
                                                       PICTURE X VALUE 111.
                    FILLER
FILLER
                                                       PICTURE X(120) VALUE SPACE.
PICTURE X(6) VALUE : PAGEI.
40020
                02
                                                                                                         C98970
40030
                02
                                                                                                         C98970
40040
                     PAGE-NO
                                                       PICTURE Z9.
                                                                                                         C98970
                    FILLER
                                                       PICTURE X VALUE IST.
                                                                                                         C98970
40050
                                                                                                         C98970
         01
               TITLE-LINE SYNC.
40060
                                                       PICTURE XC103 VALUE IS WUC > I.
PICTURE XC51 VALUE SPACE.
PICTURE XC151 VALUE SPACE.
PICTURE XC131.
PICTURE XC903 VALUE SPACE.
40070
                    FILLER
                    CUR-WUC
FILLER
ISC-TITLE
400A0
                02
                                                                                                         C98970
                                                                                                         C98970
40090
                02
               02
40100
                                                                                                         C98970
                          PICTURE X VALUE :::
WITH-DISC-CODE-TITLE SYNC.
FILLEF
                    FILLER
                                                                                                         C98970
40110
40120
40130
                     FILLER
                                                                                                         C98970
          01
40140
                05
                                                                                                         C98970
                           I WHEN DISC. CODE WOC-TIFLE-DATA FILLER
                                                                                                         C98970
40150
                                                      ١.
                                                       PICTURE XC53 OCCURS 21 TIMES.
PICTURE XC73 VALUE : #1.
                                                                                                         C98970
40160
40170
                05
40200
                SG-WUC-TITLE-1 SYNC.
                                                                                                         C98970
          01
               05
05
                    FILLER
SG-WUC-TITLE-1A
                                                       PICTURE X[18] VALUE SPACE.
40210
                                                                                                         C98970
                                                       PICTURE X[80].
PICTURE X[25].
PICTURE X[7] VALUE :
                                                                                                         C98970
40220
40230
               05
05
                     SU-WUC-TIT .L-18
                                                                                                         C98970
                     FILLER
                                                                                        U Met.
                                                                                                         C98970
40240
                                                                                                         C98970
40300
          01
                      SG-WUC-TITLE-2 SYNC.
                                                       PICTURE XC183 VALUE
               05
40310
                     FILLER
40315
                           : SUPPORT
                                                                                                         C98970
40320
                     SU-WUC-TITLE-2A
SU-WUC-TITLE-28
                                                       PICTURE XCAU ).
PICTURE XC25 ).
                05
                                                                                                         C98970
                05
                     FILLER
                                                       PICTURE XE73 VALUE 1
                                                                                        N Asi.
                                                                                                         C98970
                                                                                                         C98970
40350
          01
                     SG-WUC-TITLE-S SYNC.
                                                                                                         C98970
                                                       PICTURE XE183 VALUE
               05
                     FILLER
                           : GENERAL
40365
                     SG-WUC-TITLE-JA
                                                       PICTURE XEBO 3.
                                                                                                         C98970
40370
                05
40300
               05
05
                    SG-WUC-TITLE-3B
                                                       PICTURE X[25].
PICTURE X[7] VALUE :
                                                                                                         C98970
                                                                                                         C98970
                                                                                        S Itt.
40.390
                                                                                                         C98970
                    WUC-TITLE-4 SYNC.
          01
40410
40420
                05
                    FILLER
                                                       PICTURE X[18] VALUE
                                                                                                         C98970
                                                                                                         C98970
40425
                                                       PICTURE XCAO3.
PICTURE XC253.
PICTURE XC73 VALUE 1
40430
                     SG-#UC-TITLE-4A
                                                                                                         C98970
                    56-#UC-T1T'.E-4B
                                                                                                         C98970
40440
               05
                                                                                                         C98970
40450
                     FILLER
                                                                                        C N# I.
40480
          01
               SG-WUL-TITLE-5 SYNC.
                                                       PICTURE XC103 VALUE SPACE. PICTURE XC103. PICTURE XC253.
                                                                                                         C98970
                    FILLER
               05
40490
                     SU-WUC-TI-LE-5A
                                                                                                         C98970
40500
                                                                                                         C98970
                     SG-WUC-TITLE-5R
40510
               05
                     FILLER
                                                       PICTURE XC73 VALUE :
                                                                                        H TSI.
                                                                                                         C98970
40520
               HMC-FHEU-LINE SYNC.
40620
          01
                                                                                                         C98970
                                                       PICTURE XC123 VALUE
                                                                                                         C98970
40630
                           I/FRED HMC > 1.
                                                                                                         C98970
40640
                                                       PICTURE XXX. PICTURE XXX VALUE 1
40650
                    CUR-HMC
                                                                                                         C98970
                    FILLER
                                                                                                         C98970
40660
               02
                    HMC-FREQ-POT
                                                       PICTURE ZESI
                                                                                                         C98970
40670
                                       OCCURS 21 TIMES.
                                                                                                         C98970
40680
                    HMC-FREQ-TOTAL-RPT
                                                                                                         C98970
40690
                    FILLER
                                                       PICTURE X VALUE I#:.
                                                                                                         C98970
40700
                                                                                                         C98970
               TABLE-SG-WUC-VALUES SYNC.
         01
40830
                    SG-WUC-ORCURS 14 TIMES PI
COL-NO OCCURS 14 TIMES PI
FILLER SYNC.
TARLE-SG-WUC-FREO-ISC.
                                                       PICTURE XC53.
                                                                                                         C98970
41092
41093
                                                       PICTURE S99 COMPUTATIONAL.
                                                                                                         C98970
                                                                                                         C98970
         01
41100
                                                                                                         C98970
41105
                          SG-WUL-FREQ-ISC-1
SD-WUL-FREQ-ISC-2
SG-WUC-FREQ-ISC-3
SG-WUC-FREQ-ISC-4
                                                      PICTURE S9(5) COMPUTATIONAL.
PICTURE S9(5) COMPUTATIONAL.
PICTURE S9(6) COMPUTATIONAL.
PICTURE S9(5) CUMPUTATIONAL.
41125
                                                                                                         C98970
C98970
41126
41127
                                                                                                         C98970
41128
                                                       PICTURE S9(5) COMPUTATIONAL.
PICTURE S9(5) COMPUTATIONAL.
41129
                           SG-WUL-FREO-ISC-5
SG-WUL-FREO-ISC-6
                                                                                                         C98970
                     0.5
                                                                                                         C98970
                                                       PICTURE S9(5) COMPUTATIONAL.
PICTURE S9(5) COMPUTATIONAL.
PICTURE S9(5) COMPUTATIONAL.
                           SG-WUC-FREO-ISC-7
SG-WUC-FREO-ISC-8
                                                                                                         C98970
C98970
41151
41132
                     0.5
                           SG-WUC-FREQ-ISC-9
41155
                     0.5
                                                                                                         C98970
                                                       PICTURE S9(5) COMPUTATIONAL.
PICTURE S9(5) COMPUTATIONAL.
PICTURE S9(5) COMPUTATIONAL.
PICTURE S9(5) COMPUTATIONAL.
                          SG-WUL-FREQ-ISC-10
SG-WU'-FREQ-ISC-11
                                                                                                         C98970
41135
                     03
                                                                                                         C98970
                           SG-WUT-FREO-ISC-12
41136
                                                                                                         C98970
41137
                     03
                           SG-WUC-FREQ-ISC-13
                                                                                                         C98970
                           SG-WUL-FREQ-ISC-14
                                                       PICTURE S9(5) COMPUTATIONAL.
41138
                     03
                                                                                                         COROTO
41139
                           SG-WUT-FREO-ISC-15
                                                       PICTURE S9053 COMPUTATIONAL.
                                                                                                         C98970
41140
                           SG-WUT-FREQ-ISC-16
                                                       PICTURE S9(5)
                                                                          COMPUTATIONAL.
                                                                                                         C98970
                           SG-WUC-FREQ-ISC-17
41141
                     03
                                                       PICTURE S9(5) COMPUTATIONAL.
PICTURE S9(5) COMPUTATIONAL.
                                                                                                         C98970
                           SG-WUL-FREQ-ISC-18
                                                                                                         C98970
                                                                           COMPUTATIONAL
41145
                           SG-WUC-FREQ-ISC-19
SG-WUC-FREQ-ISC-20
                                                       PICTURE S9(5) COMPUTATIONAL.
PICTURE S9(5) COMPUTATIONAL.
                                                                                                         C98970
                                                                                                         C98970
```

1. 1 / . .

```
SG-WUC-FREO-ISC-21 PICTURE S9(5) COMPUTATIONAL.
FILLEF MEDEFINES TABLE-SG-WUC-FREO-ISC.
SG-WUC-FREO-ISC PICTURE S9(5) COMPUTATIONAL
                                                                                                                                     C98970
41145
                           0.3
41146
                   02
                                                                                                                                     C98970
41148
                                                                                                                                     C98970
                                                                         OCCURS 21 TIMES.
                                   TARLE - SG-FREG-NI.
                                                                                                                                      C98970
                   02
                                                                     PICTURE S9[5] COMPUTATIONAL.
41170
                                  SG-WUC-FREO-NI-1
SG-WUC-FREO-NI-2
                                                                                                                                     C98970
                          0.3
                                                                                                                                     C98970
                           03
                                 SG-WUL-FREO-NI-3
SG-WUL-FREO-NI-4
SG-WUL-FREO-NI-5
SG-WULC-FREO-NI-6
41172
                           03
                                                                                                                                     C98970
                                                                                                                                     C98970
41173
                           03
41174
                                                                                                                                     C98970
41175
                           0.3
                                 SG-WUL-FREG-NI-7
SG-WUL-FREG-NI-8
41176
                                                                     PICTURE S9(5) COMPUTATIONAL.
                                                                                                                                     C98970
41177
                           03
                                                                                                                                     C98970
                                  SG-WUC-FREQ-NI-9
                           03
                                                                                                                                     C98970
41178
                                  SG-WUL-FREQ-NI-10
SG-WUL-FREQ-NI-11
                           03
                                                                                                                                     C98970
                                                                                                                                     C98970
                           0.3
41180
                                  SG-WUC-FREQ-NI-12
SG-WUC-FREQ-NI-13
                                                                                                                                     C98970
41181
                           0.3
41182
                                                                                                                                     C98970
                                  SG-WUL-FREO-NI-14
SG-WUC-FREO-NI-15
                                                                                                                                     C98970
41183
41184
                           0.5
                                                                                                                                     C98970
                           03
                                  SG-WUC-FREQ-NI-16
                                                                                                                                     C98970
41185
                          03
                                  SG-WUC-FREO-NI-17
SG-WLC-FREO-NI-18
                                                                                                                                     C98970
41186
                                                                                                                                     C98970
41187
                                  SG-WUC-FREO-NI-19
SG-WUC-FREO-NI-20
41188
                           03
                                                                                                                                     C98970
41189
                           0.3
                                                                                                                                     C98970
                                  SG-WUC-FREO-NI-21 PICTURE SQL51
FILLER REDEFINES TABLE-SG-FREO-NI.
SG-WUC-FREO-NI PICTURE SQL51
                                                                                                                                     C98970
                           03
41191
                                                                                                                                     C98970
                   02
                                                                      PICTURE S9[5] COMPUTATIONAL OCCURS 21 TIMES.
                                                                                                                                     C98970
41193
                                                                                                                                     C98970
                   TAPE-OUT-ISC SYNC.
                                                                                                                                     C98970
41200
            01
                                                                      PICTURE X VALUE 1H1.
PICTURE X VALUE SPACE.
PICTURE X(5).
                         FILLER
                                                                                                                                     C98970
41210
                                                                                                                                     C98970
41220
                   02
                           CUR-WUC-I JC
                                                                                                                                     C98970
                                                                     PICTURE X VALUE SPACE.
PICTURE XXX.
41240
                   02
                          FILLER
                                                                                                                                     C98970
                          CUR-HMC-ISC
                                                                                                                                     C98970
41250
                   02
                          FILLER
                                                                      PICTURE X VALUE SPACE.
                                                                                                                                     C98970
41260
                          LIST-HMC-.SC.
41280
                                                                                                                                     C98970
                          03 HMC-15C-2
03 HMC-15C-3
03 HMC-15C-3
                                                                     PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
                                                                                                                                     C98970
41 300
                                                                                                                                     C98970
                                                                                                                                     C98970
41310
                                 HMC-13C-4
HMC-15C-5
                                                                      PICTURE S9[5].
41320
                                                                                                                                     C98970
                                                                     PICTURE S9(5).
PICTURE S9(5).
PICTURE S9(5).
PICTURE S9(5).
                                                                                                                                     C98970
41.330
                           03
                                  HMC-ISC-6
41340
                           03
                                                                                                                                     C98970
                                 HMC-ISC-7
41350
                                                                                                                                     C98970
                           03
                                                                                                                                     C98970
41360
                          0.3
                                  HMC-IJC-9
                                                                      PICTURE S9[5].
                                                                                                                                     C98970
                           03
41370
                                  HMC-17C-10
                                                                      PICTURE S9E5 3.
                                                                                                                                     C98970
41380
                          03
                          03
                                 HMC-ISC-11
HMC-ISC-12
                                                                     PICTURE S9[5].
PICTURE S9[5].
41390
                                                                                                                                     C98970
41400
41410
                                                                                                                                     C98970
                                                                     PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
                                  HMC-15C-13
HMC-15C-14
                                                                                                                                     C98970
                                                                                                                                     C98970
41420
                           0.3
                                  HMC-ISC-15
41430
                           03
                                                                                                                                     C98970
                                                                     PICTURE S9(5).
PICTURE S9(5).
41440
                           0.3
                                  HMC-ISC-16
HMC-ISC-17
                                                                                                                                     C98970
                           03
                                                                                                                                     C98970
                                                                                                                                     C98970
C98970
41460
                           03
                                  HMC-ISC-18
                                                                      PICTURE S9[ 5].
                                                                     PICTURE S9551.
41470
                           0.3
                                  HMC-ISC-19
                                  HMC-13C-20
                                                                                                                                     C98970
41480
                          03 HMC-13C-21 PICTUR
FILLER REDEFINES LIST-HMC-1SC.
                                                                      PICTURE S9[5].
                                                                                                                                     C98970
41490
                                                                                                                                     C98970
4149I
                          03 HMC-ISC OCCURS 21 TIMES PICTURE S9[5].
HMC-FREQ-[0]AL-ISC PICTURE S9[6].
                                                                                                                                     C98970
41492
                                                                     PICTURE S9[6].
PICTURE X[7] VALUE I 1
41500
                                                                                                                                     C98970
                          FILLER
                                                                                                                                     C98970
41510
                   TAPE-UUT-NI SYNC.
                                                                                                                                     C98970
            01
41600
                                                                     PICTURE X VALUE IHI.
PICTURE X VALUE SPACE.
PICTURE X VALUE SPACE.
PICTURE X VALUE SPACE.
PICTURE X VALUE SPACE.
                   02
41610
                         FILLER
                                                                                                                                     C98970
41620
41630
                   02
                          CUR-WUC-N'I
                                                                                                                                     C98970
                          FILLER
                                                                                                                                     C98970
                   02
41640
41650
                           CUR-HMC-1.I
                                                                                                                                     C98970
                          FILLER
                                                                                                                                     C98970
41660
41680
                   02
                          LIST-HML-NI.
                                                                                                                                     C98970
                                                                     PICTURE S9(5).
PICTURE S9(5).
                           03
41000
41700
                                HMC-1. 1-2
                                                                                                                                     C98970
                                  HMC-PI-3
                                                                     PICTURE S9[5].
41710
41720
                           03
                                                                                                                                     C98970
                                  HMC-NI-4
                                                                     PICTURE S9(51.
PICTURE S9(51.
PICTURE S9(51.
PICTURE S9(51.
                                 HMC-N1-5
41730
                          0.3
                                                                                                                                     C98970
                                                                                                                                     C98970
                           03
41740
                                  HMC-N1-7
                                                                                                                                     C98970
C98970
41760
                           0.3
                                  HMC-N:-9
                                                                      PICTURE S9[5].
                                                                                                                                     C98970
                           03
                                                                     PICTURE S9(5).
PICTURE S9(5).
PICTURE S9(5).
41780
41790
                          03
                                  HMC-NT-10
HMC-NI-I1
                                                                                                                                     C98970
                                                                                                                                     C98970
                                  HMC-NI-12
                                                                                                                                     C98970
41800
                           0 5
                                  HMC-1 1-13
                                                                     PICTURE S9[5].
PICTURE S9[5].
                                                                                                                                     C98970
41010
                           0.3
                           03
                                  HMC-11-14
                                                                                                                                     C98970
41820
41830
                           03
                                  HMC-NI-15
                                                                      PICTURE
                                                                                    59[ 5].
                                                                                                                                     C98970
41840
                           03
                                  HMC-1-1-16
                                                                     PICTURE S9051.
                                                                                                                                     C98970
41850
```

```
03 HMC-NI-18
                                                          PICTURE S9151.
PICTURE S9151.
PICTURE S9151.
                                                                                                              C98970
41860
                           HMC-NI-19
HMC-NI-20
                      03
03
41670
41480
                                                                                                              C98970
                            HMC-N1-21
                                                          PICTURE S9151.
                      03
41490
                      FILLER REDEFINES LIST-HMC-NI.

03 HMC-N. OCCURS 21 TIMES PICTURE S9(5).

HMC-FREQ-"OTAL-NI PICTURE S9(6).

FILLER PICTURE XT7) VALUE 1 2
41491
                                                                                                              C98970
                                                                                                              C98970
41892
                                                                                                              C98970
41900
41910
42000
                                                                                                              C98970
                WDC-FREG-DATA-NI SYNC.
                                                                                                               C98970
                                                          PICTURE XX VALUE 1W I. PICTURE XC51. PICTURE XC51 VALUE SPACE.
                                                                             VALUE IN I.
42010
                     FILLER
CUR-WUC-W-NI
                                                                                                              C98970
42020
                      FILLER
                                                                                                              C98970
                      TABLE-WDC-FREQ-NI.
                                                                                                              C98970
42040
                02
                                                          PICTURE S9151.
PICTURE S9151.
PICTURE S9151.
42050
                      03
                            WUC-FREQ-NI-I
                                                                                                              C98970
                           WOC-FREQ-NI-2
                                                                                                              C98970
42060
                            WDC-FREG-NI-3
                                                                                                              C98970
42070
                           WDC-FREG-NI-4
WDC-FREG-NI-5
                                                          PICTURE S9[5].
PICTURE S9[5].
42080
                                                                                                              C98970
                                                                                                              C98970
42090
                      03
                            WDC-FREG-NI-6
                                                          PICTURE S9151.
                                                                                                              C98970
42100
                      0.3
                            WDC-FREW-NI-7
                                                          PICTURE S9t 5 ].
42110
                                                          PICTURE S9051.
PICTURE S9051.
42120
                            WDC-FREQ-NI-8
                                                                                                              C98970
                            WDC-FREQ-NT-10
42130
                                                          PICTURE S9151.
PICTURE S9151.
42140
                      0.3
                                                                                                              C98970
                            WDC-FREQ-NI-11
                                                                                                              C98970
42150
42160
                            WDC-+ REQ-NI-12
WDC-| REU-NI-13
                                                          PICTURE S9151.
PICTURE S9151.
PICTURE S9151.
                                                                                                              C98970
                                                                                                              C98970
42170
                      0.5
                            WDC-FREQ-NI-14
42180
                                                          PICTURE S9151.
PICTURE S9151.
42190
                            WDC-FREQ-NI-15
                                                                                                              C98970
                                                                                                              C98970
                            WDC-FREQ-NI-16
42200
                      03
                            WOC-FREG-NI-17
WOC-FREG-NI-18
42210
                                                          PICTURE S9(5).
                                                                                                               C98970
                                                          PICTURE S9[5].
PICTURE S9[5].
42220
42230
                                                                                                              C98970
                            WDC-FREQ-NI-19
WDC-FREQ-NI-20
                                                                                                              C98970
42240
                      0.3
                                                          PICTURE S9151.
                                                                                                              C98970
                            WDC-FREW-NI-21
                                                          PICTURE S9[5].
                                                                                                              C98970
42250
                      FILLER REDEFINES TABLE-WDC-FREO-NI.

03 WDC-FREW-NI OCCURS 21 TIMES PICTURE S9(5).

TOTAL-WDC-FREW-NI PICTURE S9(6).
42251
                                                                                                              C98970
42252
                                                                                                              C98970
42260
                                                                                                              C98970
                02 FILLER
WDC-FREG-DATA-ISC SYNC.
                                                          PICTURE X[7] VALUE 1 2
                                                                                                              C98970
                                                                                                              C98970
42300
          01
                                                          PICTURE XX VALUE IN I.
PICTURE XI51.
PICTURE XI53 VALUE SPACE.
42310
                     FILLER
                      CUR-WUC- -- ISC
42.120
                                                                                                              C98970
                      FILLER
                                                                                                              C98970
42325
                02
42340
                      LIST-WDC-FREQ-ISC.
                                                                                                              C98970
                                                         PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
                      03 WDC-FREG-ISC-1
                                                                                                              C98970
42350
                            WDC-"REG-15C-2
WDC-FREG-15C-3
42360
                                                                                                              C98970
42370
42380
                                                                                                              C98970
                            WDC-FREW-15C-4
                                                                                                              C98970
                                                         PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
                            WDC-I REG-ISC-5
WDC-FREG-ISC-6
42390
                                                                                                              C98970
                                                                                                              C98970
42400
42410
                           WDC-FREU-ISC-7
                                                                                                              C98970
C98970
42420
                            WINC-I REG-ISC-9
WINC-FREG-ISC-10
                                                                                                              C98970
C98970
42440
                                                          PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
42450
                            WDC-FREW-ISC-11
                                                                                                              C98970
42460
42470
                            WOC-FREG-ISC-12
                                                                                                              C98970
                           WDC-FREG-ISC-13
WDC-FREG-ISC-14
WDC-FREG-ISC-14
WDC-FREG-ISC-15
WDC-FREG-ISC-16
WDC-FREG-ISC-17
                                                                                                              C98970
42480
42490
                                                          PICTURE S9[51.
                                                                                                              C98970
                                                          PICTURE S9(5).
                                                                                                              C98970
                      03
                                                          PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
42500
                                                                                                              C98970
                                                                                                              C98970
42510
                      0.3
                            WDC-FREQ-ISC-18
                                                                                                              C98970
42520
                                                          PICTURE S9[5].
PICTURE S9[5].
                           WDC-FREW-ISC-19
WDC-FREW-ISC-20
                                                                                                              C98970
42530
                      0.3
                                                                                                              C98970
42540
                     O3 WDC-FREQ-ISC-21 PICTURE S9151.

FILLER REDEFINES LIST-WDC-FREQ-ISC,
O3 WDC-FREQ-ISC OCCURS 21 TIMES PICTURE S9151.

TOTAL-WD7-FREQ-ISC PICTURE S9161.

FILLER PICTURE X173 VALUE I 1
42550
                                                                                                              COROTO
                                                                                                              C98970
42551
42552
                                                                                                              C98970
42560
                                                                                                              C98970
42570
                NINE SYNC.
02 FILLER
42600
          01
                                                                                                              C98970
                                                          PICTURE XC503 VALUE
42610
42620
                            C98970
                02 FILLER
                                                                                                              C98970
42630
42640
                            C98970
C98970
                      FILLER
42650
               C98970
42660
43000
                                                                                                              C98970
                                                          PICTURE X OCCURS 21 TIMES.
                                                                                                              C98970
44000
          01
                                                                                                              C98970
                02 FILLER
                                                         PICTURE XCIBI VALUE
                                                                                                              C98970
44010
                                                                                                              C98970
C98970
                                                         PICTURE XE51 OCCURS 21 TIMES.
PICTURE XE71 VALUE 1 #1
44020
                02 SG-WUC-1LC-1
02 FILLER
SG-WUC-FREG-LINE-2-ISC SYNC.
44030
44140
44050
                                                                                                              C98970
                                                          PICTURE XCIBI VALUE
                                                                                                              C98970
44060
                02
                     FILLER
                                                                                                              C98970
                                                          PICTURE XC51 OCCURS 21 TIMES.
PICTURE XC71 VALUE I #8
44070
                     SG-WUC-15C-2
FILLER
                                                                                                              C98970
44060
                02
44090
```

```
SG-WUC-FREG-LINE-3-ISC SYNC.
PICTURE XC18] VALUE
44100
              SG-WUC-FILLER
02 FILLER 1/SUPPORT
44110
                                                                                                 C98970
                                                  PICTURE X(5) OCCURS 21 TIMES.
PICTURE X(7) VALUE : #1
44120
              02 SG-#UC-
02 FILLER
44150
                   SG-#UC-ISC-3
                                                                                                 C98970
                                                                                                 C98970
              02 FILLER
SG-WUC-FREG- INE-4-ISC SYNC.
PICTURE X[18] VALUE
44140
44150
                                                                                                 C98970
                                                                                                 C98970
44160
                                     1/ GENERAL
                                                  PICTURE XEST OCCURS 21 TIMES.
PICTURE XETT VALUE: #1.
                                                                                                 C98970
44170
              02 SG-#UC-13C-4
02 FILLER
44180
                                                                                                 COROTA
                                                                                                 C98970
44190
              SG-WUC-FREG-LINE-5-ISC SYNC.
02 FILLER PICTURE X[18] VALUE
                                                                                                 C98970
44200
                               1/ W.U.C. :.
GC-5 PICTURE XC5] OCCURS 21 TIMES.
PICTURE XC7] VALUE: #1
                                                                                                 C98970
44210
44220
              02 SG-WUC-ISC-5 PICTURE X[5] OCCURS
02 FILLER PICTURE X[7] VALUE
SG-WUC-FREQ-LINE-6-ISC SYNC.
PICTURE X[18] VALUE
44250
                                                                                                 C08270
                                                                                                 C98970
44240
                                                                                                 C98970
44250
44260
                                                                                                 C08970
                                             FREQUENCY :.
PICTURE X[S] OCCURS 21 TIMES.
PICTURE X[7] VALUE : #:
                                                                                                 C98970
44270
              02 56-AUC-ISC-6
02 FILLER
                                                                                                 C98970
44280
                                                                                                 C98970
44200
              SG-WUC-FREO-LINE-1-NI SYNC.
                                                                                                 C98970
44300
              02 FILLER
                                                   PICTURE XC18] VALUE
44510
                                                                                                 C98970
                                                   PICTURE X[5] OCCURS 21 TIMES.
PICTURE X[7] VALUE : #1
                                                                                                 C98970
44520
44530
              02 SG-WUC-
02 FILLER
                   SG-WUC-NI-1
                                                                                                 C98970
44340
                                                                                                 CORGIO
              SG-WUC-FREG-LINE-2-NI SYNC.
                                                   PICTURE X[18] VALUE
44360
              02 FILLER
                                                                                                 COROZO
                                                   PICTURE XE53 OCCURS 21 TIMES.
PICTURE XE73 VALUE: #1.
44570
                                                                                                 C98970
              02 SG-WUC-NI-2
02 FILLER
44580
                                                                                                 C98970
44590
                                                                                                 C98970
44400
         01
              SG-WUC-FREG-LINE-J-NI SYNC.
                                                  PICTURE X[18] VALUE
44410
              02 FILLER
                                                                                                 COROTO
                                     :/SUPPORT
                                                   PICTURE XC51 OCCURS 21 TIMES.
PICTURE XC71 VALUE : #1
                                                                                                 C98970
44420
              02 SG-#UC-NI-3
02 FILLER
44450
                                                                                                 C98970
                                                                                                 C98970
44440
              SG-WUC-FREO-LINE-4-NI SYNC.
                                                                                                 C98970
44450
                                                  PICTURE XC183 VALUE
44460
              02 FILLER
                                                                                                 C98970
                                      :/ GENERAL
                                                                                                 C98970
                                                  PICTURE XC5] OCCURS 21 TIMES.
PICTURE XC7] VALUE : #1
44470
              02 SG-WUC-NT-4
02 FILLER
44480
                                                                                                 C98970
                                                                                                 C98970
44490
              SG-WUC-FREG-LINE+S-NI SYNC.
                                                                                                 C98970
44500
                                                  PICTURE X[18] VALUE
44510
                                                                                                 COROZO
                                                  PICTURE XC51 OCCURS 21 TIMES.
PICTURE XC71 VALUE : #:
                                                                                                 C98970
             02 SG-WUC-NI-5
02 FILLER
SG-WUC-FREG-LINE-6-NI SYNC.
PICTURE X[18] VALUE
44520
                                                                                                 C98970
445 50
44540
                                                                                                 C98970
                                                                                                 C98970
44550
        01
                                                                                                 C98970
                                             FREQUENCY :.
PICTURE XE51 OCCURS 21 TIMES.
PICTURE XE71 VALUE : #:
                                                                                                 C98970
44570
              02 SG-#UC-1-1-6
02 FILLER
                                                                                                 C98970
44500
                                                                                                 C98970
              FILLER SYNC
                                                                                                 C98970
C90970
44600
                                                   PICTURE ZC61.
                  TEMP-NO
FILLER REDEFINES TEMP-NO.
PICTURE X.
44610
44620
                   03 TEMF-1
03 TEMP-2
03 TEMP-3
03 TEMF-4
03 TEMF-5
03 TEMP-6
44650
                                                                                                 C98970
                                                   PICTURE X.
                                                                                                 098970
44040
                                                   PICTURE X.
                                                                                                 COROTO
44650
                                                                                                 C90970
44660
                                                   PICTURE
                                                                                                  C98970
44070
446R0
                                                   PICTURE X.
                                                                                                 C98970
              TEMP-PLACE SYNC.
        01
                                                                                                 C98970
44700
                   FILLER
TEMP-PL'CE-NO
                                                   PICTURE X[4] VALUE SPACE.
                                                                                                 C98970
                                                   PICTURE X.
44720
              02
                                                                                                 C98970
                   FILLER SYNC.

WDC-INPUT.

WDC-TITLE-INPUT

FILLER
45000
                                                                                                 C98970
45010
              05
                                                                                                 COROTO
                                                  PICTURE XC51.
PICTURE XC751.
45030
                                                                                                 C98970
                         FILLER REDEFINES WDC-INPUT.
                                                                                                 C98970
45040
              05
                                                   PICTURE XC41.
                        FILLER
                                                                                                 C98970
45050
                                                   PICTURE X.
45060
45070
                         WDC- IN
                                                                                                 C98970
                                                   PICTURE XC 75 ].
                                                                                                 C98970
                         NUMBER-CARD SYNC.
         01
45100
                                                                                                 C96970
                         NUML ER-ITEMS
                                                   PICTURE 999.
              05
                                                                                                 C98970
45110
                                                   PICTURE XX.
                        FIL' ER
                                                                                                 C98970
                        INPUT-SG-CODE
45130
45140
                                                                                                 C98970
              05
                        FILLER
FIL ER SYNC.
SUM-WOC-COL
                                                   PICTURE XE 701.
              05
45200
        01
                                                                                                 C98970
                                                                                                 C98970
              05
                                                   PICTURE S999 OCCURS 10 TIMES.
45210
                   TEMP-INPUT-SGWUC SYNC.
TEMP-SGWUC-TITLE
45300
                                                                                                 C98970
                                                   PICTURE XC251.
PICTURE XCS51.
45310
              05
                                                                                                 C98970
                   FILLER
              05
45320
                   THO-DIGIT-CODE SYNC.
45400
        01
                                                                                                 COROZO
                                                   PICTURE XX.
PICTURE XXX.
                   TWO-DIGIT
                                                                                                 C98970
45410
                   FILLER
45420
              05
                   INTERCHANGE-COLS SYNC.
        01
                                                                                                 C98970
                                                   PICTURE 999.
PICTURE 999.
              05
                   PHIM-COL
                                                                                                 C98970
45510
                   SEC-COL
FILLER
45520
                                                   PICTURE XE74 1.
45530
                                                                                                 C98970
```

```
45560 01
                                SPEC-SG-WUC-REC SYNC.
                                                                                                                                                             C98970
                               SPEC-SG-WUC
                                                                                  PICTURE XC5J.
PICTURE 999.
                                                                                                                                                             C98970
C98970
45570
                       05
 45580
                                SPEC-WELK-A
 45590
                       05 FILLER
FILLER SYNC.
                                                                                   PICTURE XE72 J.
               01
 45000
                                                                                                                                                              COAGTO
                               SPLUSSEWUC-LIST
SPLUSSEWUC-LIST
NO-SPEC-WEK-LIST
NO-SPEC-WUC SYNC
SPEC-WUC SYNC
SPEC-WEK SYNC
                                                                                   PICTURE X(5) OCCURS TO TIMES.
PICTURE 999 OCCURS TO TIMES.
PICTURE 5999 COMPUTATIONAL.
 45610
                                                                                                                                                              C98970
 45620
                       05
                                                                                                                                                              C98970
 45630
                                                                                                                                                              C98970
                                                                                   PICTURE X5J.
PICTURE 999.
PICTURE S999 COMPUTATIONAL.
 45640
               01
               01
 45050
                                                                                                                                                              COAGTO
               O1 SPEC-IN. EX 5YNC PROCEDURE DIVISION. OPEN-FILES.
                                                                                                                                                              C98970
                                                                                                                                                             C98970
50000
 50010
                       N-FILES.

OPEN INPUT .N-FILE-DR, IN-FILE-ISC, OUTPUT OUT-DATA,

CUT-PRINT-ISC, OUT-PRINT-NI, OUT-TITLES.

PERFORM READ-ISC-A-C THRU END-RIAC,
PERFORM REAU-IN-TITLE-DATA THRU END-RITD.

PERFORM REA')-SPEC-SG-WUC THRU END-RSSW.

WRITE NI-DATA FROM REPORT-ID.

WRITE ISC-DATA FROM REPORT-ID.

ADD 1 TO NO-REC-PRINT-NI.

ADD 1 TO NO-REC-PRINT-ISC.

MOVY JENO TO CNT.
50020
 50V30
                                                                                                                                                             C98970
50040
                                                                                                                                                             C98970
50045
                                                                                                                                                             C98970
 50047
                                                                                                                                                             C98970
50050
                                                                                                                                                              C98970
50060
                                                                                                                                                             C98970
50070
                                                                                                                                                             C98970
50080
                                                                                                                                                             C98970
                       MOVE ZERO TO CHT.
50100
                                                                                                                                                             C98970
              R5T-5G-WUC.
ADD 1 TO CNT.
50110
                                                                                                                                                              C98970
50120
                                                                                                                                                             C98970
                       MOVE ZERO TO 5G-WUC-FREQ-1SC (CNT),
MOVE ZERO TO SG-WUC-FREQ-N1 (CNT),
1F CNT 15 LESS THAN NO-WDC-COLS, GO TO RST-SG-WUC,
MOVE 1 TO KNT,
MOVE 5G-WUC (KNT) TO TEMP-WUC,
MOVE COL-NC (KNT) TO TEMP-COL-NO,
50130
                                                                                                                                                             C98970
 50140
50150
                                                                                                                                                              C98970
 50200
                                                                                                                                                              C98970
 50210
                                                                                                                                                              C98970
 50220
                                                                                                                                                              C98970
               READ-5G-WUC.
 50230
                       REAU IN-FILE-DB INTO INPUT-DB.
50240
                                                                                                                                                              C98970
                       AT END GO TO CLOSE-FILES.

1F MA 15 LESS THAN ZERO GO TO READ-5G-WUC.

1F WUC-2 15 EQUAL TO TWO-DIGIT PERFORM PROC-2-DIG-WUC.
 50250
                                                                                                                                                              C98970
50255
                                                                                                                                                              C98970
 50260
                                                                                                                                                             C98970
              NEXT-5G-WUC.

IF WUC 1S L 5S THAN TEMP-WUC, GO TO READ-SG-WUC.

IF WUC 15 EQUAL TO TEMP-WUC GO TO PROC-5G-WUC.

IF WUC 15 GHEATER THAN :099991 GO TO SET-TITLE-1A.
50290
50300
                                                                                                                                                             C98970
                                                                                                                                                              C98970
50.320
                                                                                                                                                              COAGTO
                       IP WC 15 GREATER THAN 1099991 GO TO SET-TITE

ADD 1 TO KN:.

IF KNT 1S GREATER THAN 14 GO TO SET-TITE-1A.

MOVL SG-WUC (KNT) TO TEMP-WUC.

MOVE COL-NO (KNT) TO TEMP-COL-NO.

GO TO NEXT-3G-WUC.
 50330
                                                                                                                                                             C98970
50340
                                                                                                                                                             C98970
                                                                                                                                                             COAGTO
50370
                                                                                                                                                              C98970
               PROC-5G-WUC.
PERFORM CHECK-1SCHRONAL THRU END-CI.
 50400
                                                                                                                                                              C98970
50410
                                                                                                                                                              C98970
 50411
                        MOVE ZERO TO SPEC-INDEX.
                                                                                                                                                              C98970
               ADD 1 TO SPEC-INDEX
 50412
                                                                                                                                                              C98970
50413
                                                                                                                                                              C98970
                       IF WUC 15 EQUAL TO SPEC-SG-WUC-LIST LS-GWUC.

PROC-SPEC-SGWUC.

F SPEC-INCTX 15 LESS THAN NO-SPEC-SG-WUC 60 TO

TEST-SPEC-SGWUC.
 50415
                                                                                                                                                             C98970
                                                                                                                                                              C98970
 50416
50417
                                                                                                                                                              C98970
                       IF ISCHRONAL IS EQUAL TO ONE ADD MA TO SG-WUC-FREQ-ISC
50420
                                                                                                                                                             C98970
                               [TEMP-C]L-NO],
ELSE ADD MA' TO 5G-WUC-FRED-N1 [TEMP-COL-NO].
50421
                                                                                                                                                             C98970
50430
                                                                                                                                                             COASTO
 50440
                       GO TO HEAD-SG-WUC.
                                                                                                                                                              C98970
             PROC-2-D1G-WUC.
PERFORM CHECK-1SCHRONAL THRU END-CI.
50500
50510
                                                                                                                                                             C98970
                                                                                                                                                             C98970
                       IF ISCHRONAL IS EQUAL TO ONE, ADD MA TO SE-WUC-FREE-ISC [TWO-D1G1T-COL] ELSE ADD MA TO SG-WUC-FREE-NI
50520
50530
                                                                                                                                                             C98970
50540
                                                                                                                  CTWO-DIGIT-COL3.
                                                                                                                                                             C98970
50600
              SET-TITLE-1A
                                                                                                                                                             C98970
                       MOVE ZERO TO CNT.
MOVE SG-WUC-FREQ-ISC [PRIM-COL] TO SG-WUC-FREQ-ISC ESEC-COL].
50602
                                                                                                                                                             C98970
50604
                      -SG-WUC-ISC.

ADD 1 TO CNT.

MOVŁ SG-WUC-FREQ-ISC [CNT] TO TEMP-NO.

MOVŁ TL-N-1 TO TEMP-PLACE-NO.

MOVŁ TEMP-P ACE TO SG-WUC-ISC-1 [CNT].

MOVŁ TEMP-P ACE TO SG-WUC-ISC-2 [CNT].

MOVŁ TEMP-P ACE TO SG-WUC-ISC-2 [CNT].

MOVŁ TL-N-3 TO TEMP-PLACE-NO.

MOVŁ TL-N-3 TO TEMP-PLACE-NO.

MOVŁ TEMP-P ACE TO SG-WUC-ISC-3 [CNT].

MOVŁ TEMP-P ACE TO SG-WUC-ISC-3 [CNT].

MOVŁ TEMP-PLACE TO SG-WUC-ISC-5 [CNT].

MOVŁ TEMP-F ACE TO SG-WUC-ISC-6 [CNT].

MOVŁ TEMP-F ACE TO SG-WUC-ISC-6 [CNT].

MOVŁ TEMP-F ACE TO SG-WUC-ISC-6 [CNT].

MOVŁ SG-WUC-FREQ-NI [PRIM-COL] TO SG-WUC-FREQ-NI [SEC-COL].

MOVŁ ZENO 10 CNT.
              SET-SG-WUC-ISC.
50606
                                                                                                                                                             COAGTO
50608
                                                                                                                                                             C98970
50610
                                                                                                                                                             C98970
50612
                                                                                                                                                             C9A970
                                                                                                                                                             C98970
50616
                                                                                                                                                             C98970
                                                                                                                                                             C98970
50618
50620
                                                                                                                                                             C98970
                                                                                                                                                             C98970
50622
50624
50626
                                                                                                                                                             COASTO
                                                                                                                                                             C98970
50628
50630
                                                                                                                                                              C98970
                                                                                                                                                             C98970
50632
50634
50636
                                                                                                                                                             C98970
50640
                                                                                                                                                            C98970
50642
```

```
SET-SG-WUC-HI.
  50644
                                                                                                                                                                                                                                                   C98970
                                     ADD 1 TU CNT.

MOVE SG-WUC-FREO-NI [CNT] TO TEMP-NO.

MOVE TEMP-I TO TEMP-PLA

MOVE TEMP-FLACE TO SG-WUC-N
  50646
                                                                                                                                                                                                                                                  C98970
  50648
                                                                                                                         TO TEMP-PLACE-NO.
TO SG-WUC-NI-1 [CNT].
TO TEMP-PLACE-NO.
TO SG-WUC-NI-2 [CNT].
TO TEMP-PLACE-NO.
   50650
  50652
                                                                                                                                                                                                                                                   C98970
                                       MOVE IEMP-.
                                                                                                                                                                                                                                                   C98970
  50654
                                     MOVE TEMP-PLACE MOVE TEMP-3
  50556
                                                                                                                                                                                                                                                  C98970
C98970
  50658
                                                                                                                        10 TEMP-PLACE-NO.
10 SG-WUC-NI-3 [CNT].
10 TEMP-PLACE-NO.
10 SG-WUC-NI-4 [CNT].
10 TEMP-PLACE-NO.
10 SG-WUC-NI-5 [CNT].
10 TEMP-PLACE-NO.
10 SG-WUC-NI-6 [CNT].
                                     MOVE TEMP-ILACE
MOVE TEMP-I
MOVE TEMP-PLACE
   50660
                                                                                                                                                                                                                                                   C98970
  50662
                                                                                                                                                                                                                                                   C98970
   50064
                                                                                                                                                                                                                                                   C98970
                                     MOVE TEMP-5
MOVE TEMP-1_ACE
MOVE TEMP-6
MOVE TEMP-PLACE
  50666
                                                                                                                                                                                                                                                  C98970
  50668
                                                                                                                                                                                                                                                   C98970
                                  MOVE TEMP={

TO TEMP=PLACE TO SG-WUC-NI=6 [CNT].

MOVE TEMP=PLACE

FONT IS L_SS THAN NO-WDC-COLS GO TO SET-SG-WUC-NI.

NOTE STORE TITLE FRR USE LATER.

MOVE PAGE=NHMBER=NI TO PAGE=NO.

MOVE NON-ISO : TO ISC-TITLE.

WRITE TAPE=TLE-TI FROM NEW=PAGE.

WRITE TAPE=FILE-TI FROM TITLE-LINE.

WRITE TAPE=FILE-TI FROM SG-WUC-TITLE-1.

WRITE TAPE-FILE-TI FROM SG-WUC-TITLE-2.

WRITE TAPE-FILE-TI FROM SG-WUC-TITLE-3.

WRITE TAPE-FILE-TI FROM SG-WUC-TITLE-3.

WRITE TAPE-FILE-TI FROM SG-WUC-TITLE-5.

WRITE TAPE-FILE-TI FROM SG-WUC-FREO-LINE-INI.

WRITE TAPE-FILE-TI FROM SG-WUC-FREO-LINE-2-NI.

WRITE TAPE-FILE-TI FROM SG-WUC-FREO-LINE-3-NI.

WRITE TAPE-FILE-TI FROM SG-WUC-FREO-LINE-3-NI.

WRITE TAPE-FILE-TI FROM SG-WUC-FREO-LINE-5-NI.

WRITE TAPE-FILE-TI FROM SG-WUC-FREO-LINE-3-ISC.

WRITE TAPE-FILE-TI FROM SG-WUC-FREO-LINE-5-ISC.

W
  50670
                                                                                                                                                                                                                                                 C98970
C98970
  50672
  50074
                                                                                                                                                                                                                                                  C98970
  50700
                                                                                                                                                                                                                                                  C98970
  50710
                                                                                                                                                                                                                                                  C98970
 50720
50730
                                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                                 C98970
  50740
                                                                                                                                                                                                                                                  C98970
 50750
50760
                                                                                                                                                                                                                                                 C98970
  50770
                                                                                                                                                                                                                                                   C98970
  507A0
                                                                                                                                                                                                                                                 C98970
  50790
                                                                                                                                                                                                                                                  C98970
 50400
                                                                                                                                                                                                                                                   C98970
  50810
                                                                                                                                                                                                                                                  C98970
 50812
                                                                                                                                                                                                                                                  C98970
  50814
                                                                                                                                                                                                                                                  C98970
  50815
                                                                                                                                                                                                                                                   C98970
  50816
                                                                                                                                                                                                                                                 C98970
  50017
                                                                                                                                                                                                                                                  C98970
 50420
                                                                                                                                                                                                                                                  C98970
  50830
                                                                                                                                                                                                                                                  C98970
 50850
                                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                                 C98970
 50920
                                                                                                                                                                                                                                                   C98970
  50922
 50924
                                                                                                                                                                                                                                                 C98970
  50925
                                                                                                                                                                                                                                                  C98970
 50426
                                                                                                                                                                                                                                                 C98970
  50927
                                                                                                                                                                                                                                                 C98970
                                                                                                                                                                                                                                                   C 98970
 50930
 51000
                                                                                                                                                                                                                                                  C98970
 51005
                                                                                                                                                                                                                                                   C98970
                       READ-NSU-WUC.
 51010
                                                                                                                                                                                                                                                  C98970
                                    JAMES HOL-FILE-DB INTO INPUT-DB.

AT ENO GO TO CLOSE-TABLE.

IF 10ENT 1: NOT EQUAL TO :4: GO TO READ-NS8-WUC.
PERFORM PROC-WDC THRU END-PROC-WDC.
IF POS-WDC IS EQUAL TO ZERO GO TO READ-NSG-WUC.
 51020
                                                                                                                                                                                                                                                 C98970
 51030
51040
                                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                                 C98970
 51050
                                                                                                                                                                                                                                                  C98970
 51060
                                                                                                                                                                                                                                                 C98970
  51100
                                                                                                                                                                                                                                                   C98970
                                    MOVE ZERO TO PAGE-NUMBER-ISC.
MOVE ZERO TO PAGE-NUMBER-NI.
                                                                                                                                                                                                                                                 C98970
C98970
 51102
 51104
                                    MOVE WUC TO CUR-WUC.
MOVE SPACE TO ISC-TITLE-FLAG.
MOVE SPACE TO NI-TITLE-FLAG.
AOD I TO NO-WUC.
 51110
                                                                                                                                                                                                                                                   C98970
 51130
                                                                                                                                                                                                                                                 C98970
 51140
                                                                                                                                                                                                                                                  C98970
 51150
                                                                                                                                                                                                                                                  C98970
 51160
                                    PERFORM RESET-WUC-FREO.
                                                                                                                                                                                                                                                 C98970
                       NEXT-HML .
                                  F-MML.

MOVE HMC TC CUR-HMC.

MOVE SPACE TO ISC-LINE-FLAG.

MOVE SPACE TO NI-LINE-FLAG.

PEFFORM CHECK-I5CHRONAL THRU END-CI.

IF ISCHKON/L IS EQUAL TO ONE PERFORM ADD-NI.
 51200
                                                                                                                                                                                                                                                   C98970
 51210
                                                                                                                                                                                                                                                 C98970
                                                                                                                                                                                                                                                 C98970
51220
51230
                                                                                                                                                                                                                                                 C98970
                                                                                                                                                                                                                                                 C98970
 51240
                                                                                                                                                                                                                                                  C98970
 51250
                                                                                                                                                                                                                                                 C98970
 51260
                                                                                                                                                                                                                                                 C98970
51300
51310
                       READ-OATA.
                                  D-OATA.

REAO IN-FILE-DB INTO INPUT-DR,

AT ENO GO TO CLOSE-TABLE.

IF 10ENI IS NOT EQUAL TO :4: GO TO READ-DATA.

PERFORM PROC-WDC THRU END-PROC-WDC.

JF POS-**DC IS EQUAL TO ZERO GO TO READ-DATA.

PERFORM CH-CK-I5CHRONAL THRU END-CI.

JF WUC 1S NOT EQUAL TO CUR-WUC GO TO OUTPUT-TABLE-END.

IF HMC IS HOT EQUAL TO CUR-HMC GO TO OUTPUT-LINE.

JF ISCHRON L IS EQUAL TO ONE PERFORM ADD-ISC,

ELSE PERFORM ADD-NI.
 51320
                                                                                                                                                                                                                                                 C98970
                                                                                                                                                                                                                                                  C98970
 51330
                                                                                                                                                                                                                                                 C98970
                                                                                                                                                                                                                                                 C98970
 51350
 51360
                                                                                                                                                                                                                                                  C98970
 51370
                                                                                                                                                                                                                                                 C98970
                                                                                                                                                                                                                                                 C98970
 51 JA0
 51390
                                                                                                                                                                                                                                                 C98970
                                                                                                                                                                                                                                                 C98970
51400
 51490
                                                                                                                                                                                                                                                 C98970
                                    GO TO READ-DATA.
 51500
                       RESET-HMC-LINE-NI.
MOVE ZERO TO CNT.
                                                                                                                                                                                                                                                  C98970
 51510
                     RESET-HMC-LINE-1.

ADD 1 TO CHT.

MOVE ZERO TO HMC-NI [CNT].

IF CNT IS 'ESS THAN NO-WDC-COLS GO TO RESET-HMC-LINE-1.

ENU-RESLT-W1. EXIT.
                                                                                                                                                                                                                                                 C98970
 51520
                                                                                                                                                                                                                                                  C98970
51530
51550
                                                                                                                                                                                                                                                   C98970
                                                                                                                                                                                                                                                 C98970
 51560
 51590
                       WRITE-TITLE-NI.
ADD I TO PIGE-NUMBER-NI.
 51600
                                                                                                                                                                                                                                                 C98970
                                                                                                                                                                                                                                                 C98970
 51610
```

```
MOVE PAGE-NUMBER-NI TO PAGE-NO.

WRITE NI-DATA FROM NEW-PAGE.

MOVL: NO I-ISO : TO ISC-TITLE.

WRITE NI-DATA FROM TITLE-LINE.

WRITE NI-DATA FROM WHEN-DISC-CODE-TITLE.

WRITE NI-DATA FROM SG-WUC-TITLE-1.

WRITE III-DATA FROM SG-WUC-TITLE-3.

WRITE III-DATA FROM SG-WUC-TITLE-4.

WRITE NI-DATA FROM SG-WUC-TITLE-4.

WRITE NI-DATA FROM SG-WUC-TITLE-4.
                                                                                                                                                                                          C98970
 51620
                                                                                                                                                                                          C98970
 51630
 51640
                                                                                                                                                                                          C98970
                                                                                                                                                                                          C98970
 51650
                                                                                                                                                                                          C98970
 51660
 51670
                                                                                                                                                                                          C98970
                                                                                                                                                                                          C98970
 51080
51690
51700
                                                                                                                                                                                          C98970
                                                                                                                                                                                          C98970
                           WRITE HI-DATA FROM SG-WUC-TITLE-4.

RRITE HI-D. TA FROM SG-WUC-TITLE-5.

WRITE HI-DATA FROM SG-WUC-FREG-LINE-1-NI.

WRITE HI-DATA FROM SG-WUC-FREG-LINE-2-NI.

WRITE HI-DATA FROM SG-WUC-FREG-LINE-3-NI.

WRITE HI-DATA FROM SG-WUC-FREG-LINE-4-NI.
51710
51720
                                                                                                                                                                                          C98970
                                                                                                                                                                                          C98970
 51 722
                                                                                                                                                                                         C98970
                                                                                       SG-WUC-FREG-LINE-3-NI.
SG-WUC-FREG-LINE-4-NI.
SG-WUC-FREG-LINE-5-NI.
SG-WUC-FREG-LINE-6-NI.
51724
51725
                                                                                                                                                                                          C98970
51726
51727
                            WRITE HI-DATA
                                                                    FHOM
                                                                                                                                                                                          C98970
                                                                   FROM
                                                                                                                                                                                          C98970
                            ADD 14 TO HO-REC-PRINT-NI. MOVE 14 TO LINE-CNT-NI.
                                                                                                                                                                                         C98970
 51730
                MOVE 14 TO LINE-CNT-NI.

MRITE-TITLE-ISC.

ADD I TU PAGE-NUMBER-ISC.

MOVE PAGE-IUMBER-ISC TO PAGE-NO.

BRITE ISC-CATA FROM NEW-PAGE.

MOVE: ISOCHRONAL: TO ISC-TITLE.

WRITE ISC-LATA FROM TITLE-LINE.

WRITE ISC-CATA FROM WHEN-OISC-COOE-TITLE.

WRITE ISC-TATA FROM SG-WUC-TITLE-I.

WRITE ISC-TATA FROM SG-WUC-TITLE-I.

WRITE ISC-TATA FROM SG-WUC-TITLE-I.

WRITE ISC-CATA FROM SG-WUC-TITLE-I.

WRITE ISC-CATA FROM SG-WUC-TITLE-I.

WRITE ISC-CATA FROM SG-WUC-TITLE-I.

WRITE ISC-CATA FROM SG-WUC-FREG-LINE-I-ISC.

BRITE ISC-CATA FROM SG-WUC-FREG-LINE-ISC.

WRITE ISC-CATA FROM SG-WUC-FREG-LINE-ISC.

WHITE ISC-CATA FROM SG-WUC-FREG-LINE-INE-ISC.

WHITE ISC-CATA FROM SG-WUC-FREG-LINE-INE-ISC.
51740
                                                                                                                                                                                          C98970
 51000
                                                                                                                                                                                          C98970
 51805
                                                                                                                                                                                          C98970
 51810
 51820
                                                                                                                                                                                          C98970
                                                                                                                                                                                          C98970
51830
 51840
                                                                                                                                                                                          C98970
51850
                                                                                                                                                                                          C98970
                                                                                                                                                                                          C98970
 51860
 51870
                                                                                                                                                                                          C98970
                                                                                                                                                                                         C98970
51880
                                                                                                                                                                                          C98970
 51890
51400
                                                                                                                                                                                          C98970
 51910
                                                                                                                                                                                          C98970
51912
                                                                                                                                                                                          C98970
                                                                                                                                                                                         C98970
                            WRITE ISC-PATA FROM
                                                                                       SG-WUC-FREQ-LINE-4-ISC.
51915
                                                                                                                                                                                         C98970
                                                                                                                                                                                          C98970
                            WRITE ISC-DATA FROM
                                                                                        SG-WUC-FREQ-LINE-5-15
 51416
                            WRITE ISC-LATA FROM
                                                                                       SG-WUC-FREO-LINE-6-ISC.
51917
                                                                                                                                                                                         C98970
 51420
                            ADD 14 10 10-REC-PRINT-ISC.
                                                                                                                                                                                          C98970
 51430
                            MOVE 14 TO LINE-CHT-ISC.
                                                                                                                                                                                          C98970
                                                                                                                                                                                          C98970
52000
                 PROC-WPC.
                 MOVE ZERO TO POS-WOC.

MOVE ZERO TO CNT.

PROC-WDC-A.
 52010
                                                                                                                                                                                          C98970
52020
                                                                                                                                                                                          C98970
 52030
                                                                                                                                                                                          C98970
                           ADD 1 TO CAT.

MOVE WDC-LIST ECAT] TO WOC-TEMP.

IF WDC IS 'ESS THAN WDC-TEMP GO TO END-PROC-WOC.

IF WDC IS EQUAL TO WDC-TEMP GO TO PROC-WDC-C.

IF (AN) IS LESS THAN NO-WDC-COLS GO TO PROC-WOC-A.
 52040
                                                                                                                                                                                          C98970
                                                                                                                                                                                          C98970
52050
                                                                                                                                                                                          C98970
 52060
52470
                                                                                                                                                                                          C98970
25040
                                                                                                                                                                                          C98970
 52100
                  PROL
                             -WCC-C.
                                                                                                                                                                                          C98970
                 MOVE CHT TO POS-WDC.
ENU-PROC-WDC. EXIT.
OUTPUT-LINE-OF-NI-DATA.
MOVE ZERO TO CNI.
OUTPUT-LINE-NI-A.
52110
                                                                                                                                                                                          C98970
52190
                                                                                                                                                                                          C98970
 52200
                                                                                                                                                                                          C98970
52270
                                                                                                                                                                                          C98970
                                                                                                                                                                                          C98970
                           AOD I TO CAT.

MOVE HMU-NI (CAT) TO HMC-FREQ-RPT (CAT).

IF CAT IS 'ESS THAN NO-WDC-COLS GO TO OUTPUT-LINE-NI-A.

MOVE ZERO TO HMC-FREQ-TOTAL-NI.

MOVE ZERO TO CAT.
52240
52250
                                                                                                                                                                                          C98970
                                                                                                                                                                                          C98970
52260
                                                                                                                                                                                          C98970
52300
                                                                                                                                                                                         C98970
52310
                                                                                                                                                                                          C98970
                 SUM-HI-COL.

ADD I TO CHT.

MOVE SUM-HDC-COL [CHT] TO TEMP-INDEX.
52320
                                                                                                                                                                                          C98970
52330
                                                                                                                                                                                         C98970
52340
                                                                                                                                                                                          C98970
                           ADD HMC-NI ETEMP-INDEX TO HMC-FREO-TOTAL-NI.
IF CNT IS ESS THAN SUM-INDEX GO TO SUM-NI-COL.
                                                                                                                                                                                         C98970
C98970
52350
52360
                           MOVE HMC-FPEO-TOTAL-NI TO HMC-FREO-TOTAL-RPT.

IF LINE-CNI-NI IS GREATER THAN LINE-PAGE
PEIFORM WRITE-TITLE-NI.
                                                                                                                                                                                          C98970
52392
                                                                                                                                                                                         C98970
52394
                                                                                                                                                                                         C98970
                PEIFORM WRITE-TITLE-NI,
WRITE NI-O/TA FROM HMC-FREG-LINE.
ADD I TO HO-REC-PRINT-NI.
ADD I TO LINE-CNT-NI.
MOVE COM-MIC TO CUR-WUC-NI.
MOVE COM-HMC TO CUR-HMC-NI.
WRITE TAPE-FILE FROM TAPE-OUT-NI.
ADD I TO NO-REC-TAPE.
PEPFORM RETET-HMC-LINE-NI THRU END-RESET-NI.
END-OUTPUT-LINE-NI-DATA. EXIT.
OUTPUT-LINE-OF-ISC-OUATA.
52400
                                                                                                                                                                                         C98970
                                                                                                                                                                                         C98970
52415
                                                                                                                                                                                         C98970
52500
                                                                                                                                                                                         C98970
 52510
                                                                                                                                                                                         C98970
                                                                                                                                                                                         C98970
C98970
52520
52530
                                                                                                                                                                                         C98970
C98970
 525A0
52590
                END-OUTPUT-LINE-NI-DATA. EXIT.

OUTPUT-LINE-OF-ISC-DATA.

MOVE ZEHO 'O CNT.

OUTPUT-LINE-ISC-A.

AOD I TO CNT.

MOVE HMC-IDC (CNT) TO HMC-FHF0-RPT (CNT).

IF LNT IS IESS IHAN NO-MDC-COLS GO TO OUTPUT-LINE-ISC-A.

MOVE ZEHO TO HMC-FRE0-TOTAL-ISC.

MOVE ZEHO TO CNI.

SUM-ISC-COL.
                                                                                                                                                                                          C 98970
                                                                                                                                                                                         C98970
52610
52020
                                                                                                                                                                                          C98970
52630
52640
                                                                                                                                                                                         C98970
52650
52700
                                                                                                                                                                                         C98970
                                                                                                                                                                                         C98970
52710
                 SUM-ISC-COL.
ADD I TO CPI.
52720
52730
                                                                                                                                                                                         C98970
                                                                                                                                                                                         C98970
                           MOVE SUM-WDC-COL [CNT] TO TEMP-INDEX.
ADD HMC-ISC (TEMP-INDEX) TO HMC-FREQ-TOTAL-ISC.
52740
                                                                                                                                                                                         C98970
52750
                                                                                                                                                                                         C98970
```

```
IF CNT IS LESS THAN SUM-INDEX GO TO SUM-ISC-COL. MOVE HMC-FREQ-TOTAL-ISC TO HMC-FREQ-TOTAL-RPT. IF LINE-CNT-ISC IS GREATER THAN LINE-PAGE PELFORM WRITE-TITLE-ISC.
 52760
                                                                                                                                   C98970
                                                                                                                                   C98970
 52792
                                                                                                                                   C98970
 52794
                                                                                                                                   C98970
 52800
                    WRITE ISC-MATA FROM HMC-FREG-LINE.
                                                                                                                                   C98970
                    ADD I TO NO-REC-PRINT-ISC.
52410
                                                                                                                                   C98970
                    AOD I TO LINE-CHT-ISC.
52420
                                                                                                                                   C98970
                   MOVE CUR-WUC TO CUR-WUC-ISC.
MOVE LUK-HA TO CUR-HMC-ISC.
WRITE TAPE-FILE FROM TAPE.
ADD I TO NO-REC-TAPE.
                                                                                                                                   C98970
52900
 52410
                                                                                                                                   C98970
                                                   FROM TAPE-OUT-ISC.
 52920
                                                                                                                                   C98970
 52430
                                                                                                                                   C98970
 52980
                    PERFORM RESET-MMC-LINE-ISC THRU END-RESET-ISC.
                                                                                                                                   C98970
             END-OUTPUT-LINE-ISC-DATA.
52490
                                                                EXIT.
                                                                                                                                   C98970
             OUTPUT-TABLE-END.
                                                                                                                                   C98970
 53000
                   PUT-TAULL-END.

IF NI-LINE-FLAG IS LOUAL TO SPACE GO TO OUTPUT-WDC-NI.

IF NI-TITLE-FLAG IS FQUAL TO SPACE PERFORM WRITE-TITLE-NI.

MOVE ONL TO NI-TITLE-FLAG.

PERFORM OUTPUT-LINE-OF-NI-DATA THRU END-OUTPUT-LINE-NI-DATA.
 53010
                                                                                                                                   C98970
53020
                                                                                                                                   C98970
 53030
                                                                                                                                   C98970
53040
                                                                                                                                   C98970
                  PUT-#OC-1.1.

IF NI-TITEL-FLAG IS EQUAL TO SPACE GO TO OUTPUT-CHECK-ISC.

MOVE ZERO TO TOTAL-WICK-FREG-NI.

MOVE ZERO TO CONT.
53060
                                                                                                                                   C98970
53070
53100
                                                                                                                                   C98970
                                                                                                                                   C98970
 53110
                                                                                                                                   C98970
                  -NI--CC.
53120
                                                                                                                                   C98970
                   NI-ACC.
ADD I TU CHT.
MOVE SUM-WPG-COL [CNT] TO TEMP-INDEX.
ADD BDC-FREQ-NI TIEMP-INDEX] TO TOTAL-WOC-FREQ-NI.
IF CNT IS LISS THAN SUM-INDEX GO TO SUM-NI-WDC.
MOVE TOTAL-4PC-FREQ-NI TO TOTAL-WDC-FREQ-RPT.
MOVE ZERO TO CNT.
 53130
                                                                                                                                   C98970
53140
                                                                                                                                   C90970
                                                                                                                                   C98970
53150
53160
                                                                                                                                   C98970
53170
                                                                                                                                   C98970
53180
53190
             OUTPUT-A.
                                                                                                                                   C98970
                    AOO I TO CIT.
 53200
                                                                                                                                   C98970
                   MOVE WIDE-FREG-NI (CNT) TO WOC-FREG-RPT (CNT).
IF LNT IS LESS THAN NU-WDC-COLS. GO TO OUTPUT-A.
53220
53220
                                                                                                                                   C98970
                                                                                                                                   C98970
                    WRITE NI-O-TA FHOM WDC-FREG-LINE-RPT.

MOVL CUN-WIC TO CUR-WUC-W-NI.

WRITE TAPE-FILE FROM WOC-FREG-OATA-NI.
53230
                                                                                                                                   C98970
53235
53240
                                                                                                                                   C98970
53250
53260
                    ADD I TO NO-REC-TAPE. ADD I TO NO-REC-PRINT-NI.
                                                                                                                                   C98970
            OUTPUT-LHECK-ISS.
                                                                                                                                  C98970
                   IF ISC-LINE-FLAG IS EQUAL TO SPACE GO TO OUTPUT-WDC-ISC.

IF ISC-LITLE-FLAG IS EQUAL TO SPACE PERFORM WRITE-TITLE-ISC.

MOVE ONL TO ISC-TITLE-FLAG.

PERFORM OUT OUT-LINE-OF-ISC-DATA THRU
53270
53280
                                                                                                                                   C98970
                                                                                                                                   C98970
53290
53300
                                                                                                                                  C98970
                                                                               ENO-OUTPUT-LINE-ISC-DATA.
53310
                                                                                                                                  C98970
           OUTPUT-WOC-ISC.

IF ISC-IITL-FLAG IS EQUAL TO SPACE GO TO CHECK-ID.

MOVL ZLHO TO TOTAL-WOC-FREG-ISC.

MOVL ZLHO TO CNT.
53320
                                                                                                                                   098970
53330
                                                                                                                                  C98970
53340
53345
                                                                                                                                   C98970
                                                                                                                                  C98970
                  AOD I TO CET.
53350
                                                                                                                                  C98970
                                                                                                                                  C98970
53355
                   AUD 1 TO CTT.

MOVE SUM-BPC-COL (CNT) TO TEMP-INDEX.

ADD WUC-FREG-ISC (TEMP-INDEX) TO TOTAL-WOC-FREG-ISC.

IF CNT IS LESS THAN SUM-INDEX GO TO SUM-ISC-WDC.

MOVE TOTAL-WOC-FREG-ISC TO TOTAL-WDC-FREG-RPT.

MOVE ZEHO TO CNT.
53360
                                                                                                                                   C98970
53370
                                                                                                                                  C98970
53390
53400
                                                                                                                                  C98970
            OUTPUT-B.
                                                                                                                                  C98970
53420
                                                                                                                                  C98970
                   MOVE WOC-FREG-ISC ECNT) TO WOC-FREG-RPT ECNT).

IF CNT IS LLSS THAN NO-WDC-COLS GO TO OUTPUT-B.

WRITE 15C-ONTA FROM WDC-FREG-LINE-RPT.
53430
                                                                                                                                  C98970
53440
                                                                                                                                  C98970
53450
                                                                                                                                  C98970
                   MOVE CUR-WU' TO CUR-WUC-W-ISC. WRITE TAPE-FILE FROM WDC-F
53455
                                                     FROM WDC-FREQ-DATA-ISC.
53460
                                                                                                                                  C98970
                   ADD I TO NO-REC-TAPE.
ADD I TO NO-REC-PRINT-ISC.
                                                                                                                                  C98970
53480
                                                                                                                                  C98970
53481
            CHECK-ID.
                                                                                                                                  C98970
                  IF IDEN: IS EQUAL TO :9: GO TO CLOSE-FILES. GO :0 HEXT-WUC.
53485
53490
                                                                                                                                  C98970
           CLOSE-TABLE.

MOVE :9: TO IDENT.

GO TO OUTPUT-TABLE-END.
53500
                                                                                                                                  C98970
53510
                                                                                                                                  C98970
53700
            OUTPUT-LINE .
                                                                                                                                  C98970
                   IF NI-LINE-ILAG IS EQUAL TO SPACE GO TO OUTPUT-LINE-ISC. IF NI-TITLE FLAG IS EQUAL TO SPACE PERFORM WRITE-TITLE-NI. MOVE ONE TO NI-TITLE-FLAG.
53720
53730
                                                                                                                                  C98970
                                                                                                                                  C98970
53740
                   PERFORM OUTPUT-LINE-OF-NI-DATA THRU END-OUTPUT-LINE-NI-DATA.
                                                                                                                                  C98970
            OUTPUT-LINE-ISC.
53800
                                                                                                                                  C98970
                  IF ISC-LINE-FLAG IS EQUAL TO SPACE GO TO NEXT-HMC.

IF ISC-TITLE-FLAG IS EQUAL TO SPACE PERFORM WRITE-TITLE-ISC.

MOVE ONL TO ISC-TITLE-FLAG.

PERFORM OUT.'UT-LINE-OF-ISC-DATA THRU
53820
                                                                                                                                  C98970
53630
53840
                                                                                                                                  C98970
                                                                     END-OUTPUT-LINE-ISC-DATA.
53850
                                                                                                                                  C98970
53890
                   GO TO NEXT-HMC.
                                                                                                                                  C98970
           RESLT-HMC-LINE-.SC.
MOVE ZERO TO CNT.
RESET-HMC-LINE-2.
53400
                                                                                                                                  C98970
                                                                                                                                  C98970
53420
                                                                                                                                  C98970
                  ADD I TO CHI.
MOVE ZEHO TO HMC-ISC [CHI].
                                                                                                                                  C98970
53430
51440
                                                                                                                                  C98970
```

```
IF CNT IS LESS THAN NO-WDC-COLS GO TO RESET-HMC-LINE-2, END-RESLT-ISC. EXIT.
53950
                                                                                                                          COROTA
53990
                                                                                                                          C98970
54000
            AUU-NI.
                                                                                                                          C98970
                  MOVE ONE TO NI-LINE-FLAG.
54010
                                                                                                                          C98970
                  AOO MA 10 HMC-NI [POS-WOC].
AOD MA 10 WUC-FREQ-NI [POS-WOC].
54020
                                                                                                                          C98970
54030
                                                                                                                          C98970
54100
            ADU-ISC.
                                                                                                                          C98970
                  MOVE USE TO ISC-LINE-FLAG.

ADD MA TO HMC-ISC CPOS-WDC].

ADD MA 10 WUC-FREQ-ISC CPOS-WDC].
                                                                                                                          C98970
C98970
54110
54120
54130
                                                                                                                          C98970
55000
           CLOSE-FILES.

COMPUTE CNT > NO-REC-TAPE
                                                                                                                          C98970
55010
                                                                     - NO-REC-TAPE
                                                                                                    / BF . BF.
                                                                                                                          C98970
55020
                  IF CMT IS EQUAL TO ZERO GO TO CF-1.
                                                                                                                          C98970
550 10
                                                                                                                          C98970
55040
                  WRITE TAPE-FILE FROM NINE.
                                                                                                                          C98970
                  AOO I TO CHT.

IF CHT IS LESS THAN BF GO TO CF-2.
55050
                                                                                                                          C98970
                                                                                                                          C98970
55060
55070
           CF-1.
                                                                                                                          C98970
                  COMPUTE CHT > NO-REC-TAPE-TI - NO-REC-TAPE-TI / BF * BF. IF CHT IS EQUAL TO ZERO GO TO CF-3.
55000
                                                                                                                          CO8970
55090
                                                                                                                          C98970
          WRITE TAPE- ILE-TI FROM NINE.
ADD I TO CH'.
                                                                                                                          C98970
C98970
55100
55110
55120
                                                                                                                          C98970
                  IF CHT IS LESS THAN DF 00 TO CF-4.
55130
                                                                                                                          C98970
           CF-5.
                                                                                                                          C98970
55140
                 OISPLAY: NO TITLE RECORD: NO-REC-TAPE-TI UPON CONSOLE.

OISPLAY: NO TAPE HECS: NO-REC-TAPE UPON CONSOLE.

DISPLAY: NO OF W.U.C. I NO-WUC UPON CONSOLE.

DISPLAY: NO ISC PRINT HEC I NO-REC-PRINT-ISC UPON CONSOLE.

DISPLAY: NO NI PRINT HEC I NO-REC-PRINT-NI UPON CONSOLE.

OISPLAY: ENO OF JOB C9897: UPON CONSOLE.
55150
                                                                                                                          C98970
55160
55165
                                                                                                                          COROTO
                                                                                                                          C98970
55170
                                                                                                                          C98970
55180
                                                                                                                          COROTO
55190
                                                                                                                          C98970
55200
                  CLOSE IN-FILE-DO.
                                                                                                                          C98970
                           OUT-OATA.
55220
                                                                                                                          C98970
                                                                                                                          C98970
55230
                           OUT-PHINT-TSC
55/15
                        IN-FILE-ISC.
55240
                            OUT-PHINT-NI
                                                                                                                          C98970
                            OUT-T. TLES WITH LOCK.
55250
                                                                                                                          C98970
                  GOBACK.
55290
                                                                                                                          C98970
          GONACH.

PHUL-STRIC-SOWIC.

IF STRIAL-NO IS NOT FOUAL TO CUR-SN 90 TO NEW-SN-SO-WUC.

IF WEEK - P-WEEK IS GREATER THAN SPEC-WEEK-LIST [SPEC-INDEX]

GO TO ENO-SG-WUC-INSP.
55400
55410
55420
                                                                                                                          C98970
                                                                                                                          C98970
55425
                                                                                                                          C98970
           NOT-ENO-SPEC-SG-WUC-INSP.
MOVE WEEK TO P-WEEK.
MOVE FLT-HRS TO P-FLT-HRS.
GO TO READ-SG-WUC.
55430
55440
                                                                                                                          C98970
                                                                                                                          C98970
55450
55460
                                                                                                                          C98970
C98970
           NEW-SN-5G-FUC.
                                                                                                                          C98970
55500
                  IF ISCHRONAL IS EQUAL TO ONE ADD 1 TO SG-WUC-FREQ-ISC [TEMP-CO.-NU] ELSE ADD 1 TO SG-WUC-FREQ-N1 [TEMP-COL-NO]. MOVE SENIAL-NO TO CUR-SN.
55510
55520
                                                                                                                          C98970
                                                                                                                          C98970
55530
                                                                                                                          C98970
                  GO TO HUT-END-SPEC-SG-WUC-INSP.
                                                                                                                          C98970
55540
           GO TO HOTERIN-SPEC-30-800-1.737.

ENO-SG-WUC-INSP.

IF ISCHRONAL IS EQUAL TO ONE ADD 1 TO SG-WUC-FREQ-ISC

(TEMP-COL-NO) ELSE ADD 1 TO SG-WUC-FREQ-NI [TEMP-COL-NO].

GO TO NOT-ENJ-SPEC-SG-WUC-INSP.
55600
                                                                                                                          C98970
                                                                                                                          C98970
55610
55620
                                                                                                                          C98970
55630
                                                                                                                          C98970
70000
           READ-ISC-A-C.
                                                                                                                          C98970
                 REAU IN-FILE-ISC INTO NO-TSC AT END GO TO ENO-RIAC. MOVE ZENO TO KNT.
70010
                                                                                                                          C98970
                                                                                                                          C98970
70020
                                                                                                                          C 98970
C 98970
70030
                  ADD 1 TO KNT
70040
                  READ IN-FILE-15C INTO 15C-A-C AT END GO TO END-RIAC.
                                                                                                                          C98970
70050
                  MOVE ISC-TH TO ISC-AC-TH EKNT].
MOVE ISC-WK TO ISC-AC-WK EKNT].
70060
                                                                                                                          COAGTO
                                                                                                                          C98970
70070
                  IF ISC-WK IS LESS THAN MIN-ISC-WEEK MOVE ISC-WK TO MIN-ISC-WEEK.
                                                                                                                          C98970
C98970
70075
70076
                  IF ANT IS LESS THAN NO-ISC-AC GO TO RIAC.
                                                                                                                          C98970
70080
           END-RIAL. EXIT.
CHECK-15CHRONAL.
70090
                                                                                                                          COROTO
                                                                                                                          C98970
70200
                  IF SERIAL-NO IS NOT EQUAL TO PREV-TESTED-SN 00 TO CHECK-1-2.

IF 15C-+LAG IS EQUAL TO TWO 00 TO ENO-CI.

IF ISCHHONAL IS EQUAL TO ONE AND WEEK IS NOT LESS THAN MIN-ISC-WEEK. THEN 00 TO ENO-CI.
                                                                                                                          C98970
70210
70220
                                                                                                                          C98970
70230
70232
70240
                                                                                                                          C98970
           CHECK-1-2.
                  MOVE INU TO TSCHRONAL.

IF WEEK IS LESS THAN MIN-ISC-WEEK OO TO END-CI.

MOVE ZEHO TO CNT.
70250
                                                                                                                          C98970
70270
                                                                                                                          COAGTO
                                                                                                                          C98970
           CHECK-I-I.
70280
70290
                  AUD 1 TO CHT
                                                                                                                          C98970
                  ADDITION ON HOVE ISC-AC-IN CONTITO ISC-TEMP.

IF SERIAL-NO IS LESS THAN ISC-TEMP GO TO CHECK-I-4.

IF SERIAL-NO IS EQUAL TO ISC-TEMP GO TO CHECK-I-1A.

IF ORT IS LESS THAN NO-ISC-AC GO TO CHECK-I-I.
                                                                                                                          C98970
70300
70310
                                                                                                                          C90970
70320
                                                                                                                          C98970
                                                                                                                          C98970
70330
70340
           CHECK-1-4.

MOVE TWO TO ISC-FLAG.
GO TO CHECK-1-5.
                                                                                                                          C98970
                                                                                                                          C98970
70350
70360
                                                                                                                          C98970
           CHECK-I-IA
70370
                                                                                                                          C98970
                  MOVE ISC-AC-WK [CNT] TO WEEK-TEMP.
                                                                                                                          C98970
703A0
```

```
IF WEEK-TEMP IS EQUAL TO WEEK OR WEEK IS GREATER THAN WEEK-TEMP MOVE ONE TO ISCHRONAL.
 70390
                                                                                                                                                                 C98970
 70400
70410
                                                                                                                                                                 C98970
                         MOVE ONE TO ISC-FLAG.
  70430
                CHECK-1-3.
                                                                                                                                                                 C98970
                MOVE SERIAL-'10 TO PREV-TESTED-SN. END-CI. EXIT. RESET-WUC-FREG.
 70440
                                                                                                                                                                 C98970
 70450
                                                                                                                                                                 C98970
  70500
                                                                                                                                                                 C98970
                        MOVE ZERO TO WOC-FREG-NI-1.
MOVE ZERO TO WOC-FREG-NI-2.
MOVE ZERO TO WOC-FREG-NI-3.
MOVE ZERO TO WOC-FREG-NI-4.
MOVE ZERO TO WOC-FREG-NI-5.
MOVE ZERO TO WOC-FREG-NI-5.
 70510
                                                                                                                                                                 C98970
  70520
                                                                                                                                                                 C98970
  70530
                                                                                                                                                                C98970
C98970
 70540
  70550
                                                                                                                                                                 C98970
 70560
                        MOVE ZERO TO WDC-FREG-NI-6.
MOVE ZERO TO WDC-FREG-NI-7.
MOVE ZERO TO WDC-FREG-NI-9.
MOVE ZERO TO WDC-FREG-NI-10.
MOVE ZERO TO WDC-FREG-NI-11.
MOVE ZERO TO WDC-FREG-NI-12.
MOVE ZERO TO WDC-FREG-NI-13.
MOVE ZERO TO WDC-FREG-NI-13.
                                                                                                                                                                 C98970
 70570
                                                                                                                                                                 C98970
 70580
                                                                                                                                                                C98971
  70590
                                                                                                                                                                 C98970
 70000
                                                                                                                                                                 C98970
  70610
                                                                                                                                                                 C98970
  70620
                                                                                                                                                                 C98970
  70630
                                                                                                                                                                 C98970
  70640
                         MOVE ZERO TO WOC-FREO-NI-14.
                                                                                                                                                                C98970
                         MOVE ZERO TO WOC-FREG-NI-15.
  70050
                                                                                                                                                                 C98970
                         MOVE ZEHO TO WOL-FREG-NI-16.
MOVE ZEHO TO WOL-FREG-NI-17.
MOVE ZEHO TO WDC-FREG-NI-18.
  70060
                                                                                                                                                                C98970
  70670
                                                                                                                                                                 C98970
  70680
                                                                                                                                                                 C98970
                        MOVE ZERO TO WOC-FREO-NI-19.
MOVE ZERO TO WOC-FREO-HI-20.
MOVE ZERO TO WDC-FREO-HI-21.
  70690
                                                                                                                                                                C98970
  70700
                                                                                                                                                                 C98970
  70710
                                                                                                                                                                 C98970
                        MOVE ZERO TO WOC-FREO-ISC-I.
MOVE ZERO TO WOC-FREO-ISC-2.
MOVE ZERO TO WOC-FREO-ISC-3.
MOVE ZERO TO WOC-FREO-ISC-4.
  70810
                                                                                                                                                                 C98970
  70620
                                                                                                                                                                 C98970
  70030
                                                                                                                                                                 C98970
                       MOVE ZERO TO WOC-FRED-ISC-4.

MOVE ZERO TO WOC-FRED-ISC-5.

MOVE ZERO TO WOC-FRED-ISC-6.

MOVE ZERO TO WOC-FRED-ISC-6.

MOVE ZERO TO WOC-FRED-ISC-8.

MOVE ZERO TO WOC-FRED-ISC-10.

MOVE ZERO TO WOC-FRED-ISC-11.

MOVE ZERO TO WOC-FRED-ISC-11.

MOVE ZERO TO WOC-FRED-ISC-11.

MOVE ZERO TO WOC-FRED-ISC-12.

MOVE ZERO TO WOC-FRED-ISC-13.

MOVE ZERO TO WOC-FRED-ISC-14.

MOVE ZERO TO WOC-FRED-ISC-16.

MOVE ZERO TO WOC-FRED-ISC-17.

MOVE ZERO TO WOC-FRED-ISC-17.

MOVE ZERO TO WOC-FRED-ISC-19.

MOVE ZERO TO WOC-FRED-ISC-19.

MOVE ZERO TO WOC-FRED-ISC-20.

MOVE ZERO TO WOC-FRED-ISC-21.

DIN-TITLE-OANA.
 70840
                                                                                                                                                                C98970
 70650
                                                                                                                                                                C98970
 70860
                                                                                                                                                                C98970
 70870
                                                                                                                                                                C98970
 TOHAU
                                                                                                                                                                C98970
 70890
                                                                                                                                                                C98970
 70900
                                                                                                                                                                C98970
 70910
                                                                                                                                                                C98970
 70920
                                                                                                                                                                C98970
 70930
                                                                                                                                                                C98970
 70940
                                                                                                                                                                C98970
 70950
                                                                                                                                                                C98970
 70960
                                                                                                                                                                C98970
 70970
                                                                                                                                                                C98970
 70980
                                                                                                                                                                C98970
 70990
                                                                                                                                                                C98970
 71000
                                                                                                                                                                C98970
71010
                                                                                                                                                                C98970
              READ-IN-TITLE-OA\A.

MOVE ZERO TO CNT.

READ-WOC-INPUT.
80000
                                                                                                                                                                C98970
BOULD
                                                                                                                                                                C98970
80020
                                                                                                                                                                C98970
                        REAU IN-FILE-ISC INTO WUC-INPUT,
AT END GO TO ENG-RITD.
80030
80040
                                                                                                                                                                C98970
80050
                        AOO 1 TO CHT
                                                                                                                                                                C98970
              AGO I TO CNT
MOVE WDC-IN TO WDC-LIST (CNT),
MOVE WDC-TITLE-INPUT TO WDC-TITLE-DATA (CNT),
IF CNT 1S LE'S THAN 21 GO TO READ-WDC-INPUT,
READ-UNSCHEU-MAINT-COLS.
80063
                                                                                                                                                                C98970
 86570
                                                                                                                                                                C98970
POURG
                                                                                                                                                                C98970
80100
                                                                                                                                                                C98970
                       READ IN-FILE-ISC INTO NUMBER-CARD,
AT ENO GO TO END-RITD.
MOVE NUMBER-TEMS TO SUM-INDEX.
80110
                                                                                                                                                                C98970
80120
                                                                                                                                                                C90970
80130
                                                                                                                                                                C98970
80140
80150
                        MOVE ZENO TO CNT.
                                                                                                                                                                C98970
              READ-UNSCHEO-COLS.
                                                                                                                                                                C98970
80160
                       HEAD IN-FILE-ISC INTO NUMBER-CAHO, AT ENG GO TO END-RITD.
                                                                                                                                                                C98970
80170
                                                                                                                                                                C98970
80180
                                                                                                                                                                C98970
                       MOVE NUMBER-I/EMS TO SUM-WDC-COL [CNT].

IF CNT IS LESS THAN SUM-INDEX GO TO READ-UNSCHED-COLS.

MOVE ZEHO TO CNT

REAU IN-FILE-ISC INTO NUMBER-CARD.
80190
                                                                                                                                                                C98970
80200
                                                                                                                                                                C98970
80290
                                                                                                                                                                C98970
80300
                                                                                                                                                                C98970
                       AT ENO GO TO END-RITO.
MOVE NUMBER-TEMS TO NUMBER-SGWUC.
80310
                                                                                                                                                                C98970
80320
                                                                                                                                                                C98970
80330
              READ-SGMUL-UMIA.
                                                                                                                                                                C98970
                       READ IN-FILE-ISC INTO NUMBER-CARD
80340
                                                                                                                                                                C98970
80350
                                                       AT END GO TO END-RITD.
                                                                                                                                                                C98970
80360
80370
                        ADD 1 TO CHT.
                                                                                                                                                                C98970
                       MOVE NUMBER-ITEMS TO COL-NO [CNT].
MOVE IMPUT-SG-CODE TO SG-WUC [CNT].
IF CNI IS LESS THAN NUMBER-SGWUC GO TO READ-SGWUC-DATA.
                                                                                                                                                                C98970
80380
                                                                                                                                                                C98970
80390
                                                                                                                                                                C98970
                      IF CNI IS LESS THAN NUMBER-SGWUC GO TO READ-SGWUC-DATA.

D-SGWUC-LITLE-INPUT.

REAU IN-FILE-ISC INTO SG-WUC-TITLE-1A, AT END GO TO END-RITD.

REAU IN-FILE-ISC INTO SG-WUC-TITLE-2A, AT END GO TO END-RITD.

READ IN-FILE-ISC INTO SG-WUC-TITLE-4A, AT END GO TO END-RITD.

READ IN-FILE-ISC INTO SG-WUC-TITLE-4A, AT END GO TO END-RITD.

REAU IN-FILE-ISC INTO SG-WUC-TITLE-5A, AT END GO TO END-RITD.
80400
                                                                                                                                                                C98970
80410
                                                                                                                                                                C98970
80420
                                                                                                                                                                C98970
80430
                                                                                                                                                               C98970
80440
                                                                                                                                                                C98970
80450
                                                                                                                                                               C98970
```

```
READ IN-FILE-ISC INTO TEMP-INPUT-SGWUC AT END GO TO END-RITD,
80460
80470
80480
                    MOVE TEMP-SGNUC-TITLE TO SG-WDC-TITLE-18.
READ IN-FILE-TSC INTO TEMP-INPDI-SGWDC AT END GO TO END-RITD.
                                                                                                                                         C98970
                                                                                                                                         C98970
                    READ IN-FILE-TSC INTO TEMP-INPUT-SGWDC AT END GO TO END-RITD,
MOVE TEMP-SGWDC-TITLE TO SG-WUC-TITLE-28.
READ IN-FILE-1SC INTO TEMP-INPUT-SGWDC AT END GO TO END-RITD,
MOVE TEMP-SGW IC-TITLE TO SG-WUC-TITLE-38.
READ IN-FILE-TSC INTO TEMP-INPUT-SGWDC AT END GO TO END-RITD,
MOVE TEMP-SGWDC-TITLE TO SG-WDC-TITLE-48.
READ IN-FILE-ISC INTO TEMP-INPUT-SGWDC AT END GO TO END-RITD,
MOVE TEMP-SGWTC-TITLE TO SO-WUC-TITLE-58.
                                                                                                                                         C98970
80500
                                                                                                                                         C98970
80510
80520
                                                                                                                                         C98970
                                                                                                                                         C98970
80530
80540
                                                                                                                                         C98970
C98970
80550
            MOVE TEMP-SOWICTITLE TO SO-WUC-TITLE-SB.

READ 2-D1G11-CODE.

READ IN-FILE-ISC INTO NUMBER-CARD, AT END GO TO END-RITD,

MOVE NUMBER-ITEMS TO TWO-DIGIT-CODE.

READ-INTERCHANGE-CODE TO TWO-DIGIT-CODE.

READ-INTERCHANGE-COL.

READ IM-FILE-ISC INTO INTERCHANGE-COLS, AT END GO TO
                                                                                                                                         C98970
80600
                                                                                                                                         C98970
80610
80620
80630
80700
                                                                                                                                         C98970
                                                                                                                                         C98970
80710
                                                                                                                                         C98970
                                                                                                               END-RITD.
                                                                                                                                         C98970
80720
            END-RITU. EXIT.

REAU-SPEC-SG-WDC.

MOVE ZERO TO IO-SPEC-SG-WDC.
80/90
                                                                                                                                         C98970
80800
                                                                                                                                         C98970
80810
                                                                                                                                         C98970
            MOVE ZERO TO 10-3FEC-35 MSG.

READ-SPEC.

READ IN-FILE-ISC INTO SPEC-SG-WUC-REC AT END GO TO END-RSSW.

ADD 1 TO NO-5/EC-5G-WUC.

MOVE SPEC-5G-WC TO SPEC-SG-WUC-LIST (NO-SPEC-SG-WUC).

SUBTRACT 1 FROM SPEC-WEEK-A DIVING

SPEC-WEEK-LIST (NO-SPEC-SG-WUC).
                                                                                                                                        C98970
C98970
80820
80830
80840
                                                                                                                                         C98970
80850
                                                                                                                                         C98970
                                                                                                                                         C98970
80860
80870
                                                                                                                                         C98970
                                                                                                                                         C98970
80880
C98970
                                                                                                                                     1440 CDS
                                                                                                                                     C98970'T
                                                                                              WANG
 TFG DTO1
                     11 0202080
   34
57000236 331
57000237 331
57000243 324
    57000244
                     331
331
    57002545
                     324
331
    5800077b
    58000901
    59000002
                      331
    59000003
                      331
331
    59000005
    59000006
    59000010
                      331
    59000012
    59000015 331
    59000018
                     331
    59000010
                      331
    59000026
                      331
    59000030
    59000054
                      324
    59000057
                      324
    59000058
                      324
    59000059
                      324
    59000104
                      331
331
    59000105
                      324
    59000108
    59000110
                      324
    59000119
                      324
    59000141
    59000143
59000144
                      324
    59000145
    59000147
                      324
    59000151
    59000152
                      324
       E
    HH
```

```
RST
                                                                                                                            U V 2
                                                                 91234561b1901497881U17717
                                                                                                                                           03100
03109
03200
03210
03300
03310
03320
                                                                                                                                       03330
03400
03600
04141
0421A
04210
04610
                                                                 17
11
16
21
13
13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0 0
3 3
2 2
1 0
0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0 0
4 4
2 2
1 1
A 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0 3 1 0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0 3 1 0 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 3 0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0 a x x x
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03600
0 0 0

3 3 4

3 3 6

3 2 1

0 0 0

14 04XXX

7 12

03500 3

03510 3

03520 3

03520 3

03500 5

•END
                                    **END

**PLACE TFG DATA BLFORE THIS CARD

**/*IPR.TU12 DU DISP>.OLD.KEEP].VOL>SER>+F1.UNIT>T+F1

**/*IPR.TU14 DD DISP>**OLD.KEEP].VOL>SER>+F3.UNIT>T+F3

**/*IPR.TU22 DD DISP>**COLD.KEEP].VOL>SER>+F5.UNIT>T+F3

**/*IPR.TU24 DD DISP>**COLD.KEEP].VOL>SER>+F5.UNIT>T+F5

**/*IPR.TU24 DD DISP>**COLD.KEEP].VOL>SER>+F6.UNIT>T+F7

**/*IPR.TU25 DD DISP>**COLD.KEEP].VOL>SER>+F6.UNIT>T+F6

**/*IPR.TPR.N DU **,*SPACE>***CEP].VOL>SER>+F6.UNIT>T+F6

**/*IPR.TU25 DU DISP>***COLD.KEEP].VOL>SER>+F6.UNIT>T+F6

**/*IPR.TU25 DU DISP>***COLD.KEEP].VOL>SER>+F6.UNIT>T+F6

**/*IPR.TU26 DU DISP
**/*IPR.TU26 DU DISP
**/*IPR.TU26 DI DISP
**/*IPR.TU26 DU DISP
**/*I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                T12
T14
T22
T24
T25
```

6.7.2 FREQUENCY ANALYSIS SORT

6.7.3 THREE-DIGIT WUC ANALYSIS

```
//C989/D EXEC P9655L,TIME>04.ACCT>D35323007
                      //CHG. 1U12
                                                                                                        CT12/13 1
                                                                                                        CT12
 //CHG. TU14
                                                                                                        CT14
                                                                                                        CT14
 //CHG.1U24
                                                                                                        CT24
//
//CHG.INPUT
                                                                                                          T24
                      DU *,SPACE>(CYL,[1,1])
COMBINE COMPILE
                                                                                                          1440 CDS
 00000
                                                                           G. WANG.
                                                                                                             COROZO
01040
01050
          DATE-WPITTEN. 26 APR 72.
                                                                                                             C98970
          REMARKS.
                                                                                                             C98970
                      MAINTENANCE STUDY
 01460
                                                  PROGRAM 18.
                                                                                                             C98970
                            TRENUENCY ANALYSIS,

SIMILAP TO 1A, BUT AT 3 DIGIT WUC LEVEL,
TITLES ARE USED FROM 1A,
1NPUT SOPT SEQUENCE
WUC [3 DIGIT], HMC, WDC-DATA.
 01070
 01080
                                                                                                             C98970
01090
                                                                                                             C98970
                                                                                                             C98970
                                                                                                             C98970
          ENVIRONMENT DIVISION. CONFIGURATION SECTION.
02000
                                                                                                             C98970
 02010
                                                                                                             C98970
          SOURCE-COMPUTER. ISM-360. OBJECT-COMPUTER. ISM-360.
02020
02030
                                                                                                             C98970
U2100
02110
          INPUT-OUTPUT SECTION. FILL-CONTROL.
                                                                                                             C98970
                                                                                                             C98970
02160
                SELECT GUT-DATA
                                                            ASSIGN TO UT-S-TU12
                                                                                                             C98970
                RESERVE 1 LITERNATE APEA. SELECT OUT-TITLES
02170
                                                                                                             C98970
                                                            ASSIGN TO UT-S-TU14
                                                                                                             C98970
                PESERVE 1 ALTEPNATE APEA.
SELECT OUT-PPINT-NI
02190
02200
                                                           ASSIGN TO UT-S-TU24
                                                                                                             COROTA
02210
                      RESERVE 1 ALTEPNATE AREA.
                                                                                                             C98970
          DATA DIVISION.
10000
                                                                                                             C98970
12100
          FILE SECTION.
FU OUT-DATA
                                                                                                             C98970
                                                                                                             C98970
12120
                HECORUII.G MODE IS F
                                                                                                             C98970
12130
12140
                BLOCK CUNTAINS 23 RECORDS
RECORD CONTAINS 130
                                                          CHARACTERS
                                                                                                             C98970
                LABEL RECORDS THE OMITTED DATA RECORDS ARE TAPE-FILE.
12150
                                                                                                             C98970
12160
               DATA RECORDS ARE TAPE-FILE,
TAPE-FILE SYNC PI
OUT-TITLES
RECURDING MODE IS F
BLOCK CUNTAINS 23 RECORDS
RECURD CONTAINS 130 (
LAPLE RECORDS ARE OMITTED
DATA RECORDS ARE IAPE-FILE-TI
TAPE-FILE-TI SYNC PI
OUT-PRIHT-NI
RECORDING MODE IS F
                                                                                                             C98970
12180
                                                         PICTUPE XL 130 1.
                                                                                                            C98970
          FU
13120
                                                                                                             C98970
13130
13140
                                                          CHARACTERS
                                                                                                            C98970
13150
                                                                                                             C98970
13160
                                                                                                            COROTA
13170
          01
                                                         PICTURE X[ 130].
                                                                                                            C98970
14100
          FU
                                                                                                            C98970
                RECOPULING MODE IS F
BLOCK CONTAINS 15 RECORDS
RECOPU CONTAINS 130
                                                                                                            C98970
14130
                                                                                                            C98970
                                                          CHARACTERS
                                                                                                            C98970
                LAPEL RECORDS ARE OMITTED DATA RECORDS ARE NI-DATA.
14150
14160
                                                                                                            C98970
14170
         01 NI-UATA SYNC WORKING-STORAGE SECTION.
                                                                                                            C98970
                                                         PICTURE X[130].
30000
                                                                                                            C98970
               CURISC
CUP-WUC SYNC
                                                         PICTURE X.
                                                                                                            C98970
                                                         PICTURE XXX.
PICTURE S999.
PICTURE 9999 VALUE ZERO.
30020
                KNT SYNC COMPUTATIONAL
                                                                                                            C98970
30100
               110-#UC
```

```
CHT SYNC COMPLIATIONAL
                                                                      PICTURE $999.
                                                                                                                                     C98970
30170
                                                                      PICTURE S999 SYNC VALUE <21.
PICTURE X VALUE 111.
PICTURE X VALUE 121.
                   NO-MDC-COLS CCMPUTATIONAL
ONE SYNC
TWO SYNC
                                                                                                                                     C98970
30520
30540
30550
                   NI-TITLE-FLAG
30560
                                                SYNC
                                                                      PICTURE X.
                                                                                                                                     C98970
                                                                      PICTURE X.
PICTURE S99 SYNC VALUE ZERO.
PICTURE 9(7) VALUE ZERO.
PICTURE 9599 SYNC.
                                                                                                                                     C98970
                                                SYNC
30590
30615
                    PAGE-NUMBER-NI
                                                                                                                                      C98970
                    NO-REC-PRINT-NI
30630
                   NO-REC-PRINT-NI
LINE-CHI-NI (OMPUTATIONAL
LINE-PAUE COMPUTATIONAL
MDC-FREW-LINE-RPT SYNC.
02 FILLER
                                                                                                                                     C98970
                                                                                                                                     C98970
30670
                                                                      PICTURE S999 VALUE C60 SYNC.
                                                                                                                                     C98970
306A0
                                                                     PICTURE X(18) VALUE

J WDC FREQUENCY

PICTURE Z(10).

PICTURE Z(11).

PICTURE X VALUE :::
30/00
30710
                                                                                                                                     C98970
                                                                                                                                     C98970
30720
30730
                                                                                                                                     C98970
                                                                                                                                      C98970
                          WUC-FREG-PP1-2
30731
                          WUC-FREQ-RPT-4
                                                                                                                                     C98970
                                                                                                                                     C98970
30732
                    02
30/33
                          WDC-FREQ-POT-8
WDC-FREQ-RPT-10
                                                                                                                                     C98970
30734
                                                                                                                                     C98970
                    02
                          WUC-FREQ-R-21-12
WUC-FREQ-F-21-14
                                                                                                                                     C98970
30 / 35
30736
                                                                                                                                     C98970
                           WUC-FREQ-POT-16
                                                                                                                                     C98970
30737
                    02
                           WUC-FREQ-RPT-18
WUC-FREQ-R'T-20
                                                                                                                                     C98970
30738
30739
                    02
                                                                                                                                     C98970
                           TOTAL-WDC-FREQ-RPT
                                                                                                                                     C98970
                    02
                   02 FILLER
WDC-FREG-LINE-2-RPT SYNC.
                                                                                                                                     C98970
C98970
30741
                                                                      PICTURE X VALUE 1#1.
30750
            01
                                                                                                                                      C98970
3075I
                   02 FILLER
                                                                      PICTURE XCI33 VALUE
                                                                     PICTURE ZCIO1.
30752
                                                                                                                                     C98970
                         WUC-FREG-RPT-1
WUC-FREG-RPT-3
WUC-FREG-I PT-5
                                                                                                                                     C98970
30754
                                                                                                                                     C98970
                                                                                                                                     C98970
30755
                    02
                          WUC-FREQ-PPI-7
30750
                                                                                                                                     C98970
                    02
02
                                                                                                                                     C98970
30757
30758
                          WUC-FREG-PPT-13
30757
                    02
                                                                                                                                     C98970
                          NUC-FREG-RPT-15
                                                                                                                                     C98970
30760
                    02
                          WUC-FREQ-RPT-17
WUC-FREQ-RPT-19
WUC-FREG-RPT-21
30761
                                                                                                                                     C98970
                                                                                                                                     C98970
30762
                                                                                                                                     C98970
C90970
30763
                          FILLER
30764
                    02
32000
            01
                   REPORT-10 SYNC.
                                                                                                                                      C98970
                   REPORT - 10 STIGE.

PICTURE XC501 VALUE

159897860 TF7919-02 I42-8 I 1/2

D2 FILLER PICTURE XC501 VALUE SPACE.

PICTURE XC501 VALUE

PICTURE XC501 VALUE

PICTURE XC501 VALUE

PICTURE XC501 VALUE

PICTURE XC501 VALUE
32UI0
32U20
                                                                                                                                     C98970
                                                                                                                                     C98970
32030
                                                                                                                                     C98970
                                                                                                                                     C98970
32040
32050
                                                                                                                                     C98970
            01 NEW-PAGE SYNC.
40000
                   NEW-PAGE SYNC.

02 FILLER PIC

02 PAGE-DATA PIC

03 FILLER REDEFINES PAGE-DATA.

03 FILLER PIC

03 PAGE-NO PIC

03 FILLEP PIC

13 FILLEP PIC
                                                                      PICTURE X[120].
PICTURE X[10].
                                                                                                                                     C98970
40010
40020
                                                                                                                                     C98970
                                                                                                                                     C98970
40030
                                                                     PICTURE X[7].
PICTURE Z9.
PICTURE X.
40040
                                                                                                                                     C98970
                                                                                                                                     C98970
40050
                                                                                                                                     C98970
C98970
40060
            01 TITLE-LINE-NI SYNC.
40070
                   02 FILLER
02 WUC-NI
02 FILLER
                                                                      PICTURE XCIOJ.
                                                                                                                                      C98970
40080
                                                                      PICTURE XXX.
PICTURE XCII7].
40085
                                                                                                                                      C98970
40090
                   TITLE-LINE-ISC SYNC.

12 FILLER

12 WUC-ISC

12 FILLER
40100
            0 I
                                                                                                                                     C98970
                                                                                                                                     C98970
40110
40115
                                                                      PICTURE XCIOJ. PICTURE XXX.
                                                                                                                                     C98970
40120
                                                                      PICTURE X[117].
                                                                                                                                     C98970
                    WHEN-UISC-CODE-TITLE SYNC.
                                                                                                                                     C98970
40I30
            OI
40140
                    02 FILLER
                                                                      PICTURE XC1203.
                                                                                                                                     C98970
40150
                                                                      PICTURE X[ 10 ].
                                                                                                                                     C98970
                   SG-WUC-TITLE-I SYNC.
02 FILLER
02 FILLER
                                                                                                                                      C98970
            01
40200
40210
                                                                      PICTURE XC1201.
                                                                                                                                     C98970
                                                                      PICTURE XE 101.
                                                                                                                                     C98970
40220
                    SG-MUC-IITLE-2 SYNC.
40270
                    02 FILLER
02 FILLER
                                                                      PICTURE XC1201.
PICTURE XC101.
40280
                                                                                                                                     C98970
                                                                                                                                     C98970
40290
                   SG-WUC-TITLE-3 SYNC.
02 FILLER
02 FILLER
40340
                                                                                                                                      C98970
                                                                      PICTURE XC1201.
PICTURE XC101.
                                                                                                                                     C98970
40350
                    SG-WUC-TITLE-4 SYNC.
02 FILLER
02 FILLER
40410
                                                                                                                                     C98970
                                                                      PICTURE XC1203.
PICTURE XC103.
                                                                                                                                     C98970
40420
40430
                                                                                                                                      C98970
                   SG-MIC-11TLE-5 SYNC.
02 FILLER
02 FILLER
40480
             OI
                                                                                                                                     C98970
                                                                      PICTURE XC1203.
PICTURE XC103.
                                                                                                                                      C98970
40490
40500
                                                                                                                                      C98970
                   SG-WU-FRED-LINE-ISC SYNC.

SG-WU-FRED-LINE-ISC SYNC.

SFILLER

MMC-FREU-LINE SYNC.

FILLER

SFERG HMC > 1.
40550
                                                                                                                                      C98970
                                                                      PICTURE XC1201.
PICTURE XC101.
40560
40570
                                                                                                                                      C98970
                                                                                                                                      C98970
40620
                                                                      PICTURE XC121 VALUE
                                                                                                                                      COROTO
40630
                                                                                                                                     C98970
40640
                                                                      PICTURE XXX.
40650
```

```
FILLER
40660
                      FILLER
HMC-FREQ-RPI
OCCURS 21 TIMLS.
PICTUR
                                                          PICTURE XXX VALUE I :.
                                                                                                              C98970
                                                          PICTURE ZESI
                                                                                                              C98970
40070
                02
                                                                                                               C98970
40680
                                                          PICTURE 2061.
PICTUPE X VALUE I#:.
                      HMC-FREG-TOTAL-RPT
                                                                                                              C98970
40690
                                                                                                               C98970
                      FILLER
40700
                02
40710
          01
                SG-WUC-FREO-LINE-NI SYNC.
                                                                                                               C98970
                                                          PICTUPE XC1203.
PICTURE XC103.
                                                                                                              C98970
40720
40730
                 02
                      FILLER
                      FILLER
                                                                                                               C98970
                02
41100
          01
                            DATA-IN SYNC.
                                                                                                              C98970
                                                          PICTURE X.
                                                                                                               C98970
                            IDENT
41110
                02
41120
                            FILLER
                                                          PICTURE X.
                                                                                                               C98970
                02
                                                                                                               C98970
                                                          PICTURE XXX.
41130
                02
                            WUC
                            FILLER
                                                                                                               C98970
41140
                02
41150
                            HMC
                                                          PICTURE XXX.
                                                                                                              C98970
                                                                                                              C98970
                      FILLER
                                                          PICTURE X.
41160
                02
41170
                            LIST-HMC-IN.
                                                                                                               C98970
                                                          PICTURE S9(5).
PICTURE S9(5).
PICTURE S9(5).
PICTURE S9(5).
                            HMC-1N-1
HMC-IN-2
                                                                                                              C98970
41180
41190
                      03
                                                                                                               C98970
                            HMC-IN-5
HMC-IN-4
41200
                                                                                                               C98970
                                                                                                              C98970
41210
                      0.5
                                                          PICTURE S9(5).
PICTURE S9(5).
PICTURE S9(5).
PICTURE S9(5).
PICTURE S9(5).
41220
                      03
                            HMC-IN-5
                                                                                                              C98970
                                                                                                              C98970
                            HMC-IL-6
41230
41240
                            HMC-1"-7
                                                                                                               C98970
                      03
41250
                      0.5
                            HMC-IN-8
                                                                                                              C98970
                                                                                                               C98970
41260
                      03
                                                          PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
                            HMC-I/-I0
HMC-IN-11
                                                                                                               C98970
41270
                                                                                                              C98970
                      0.3
41280
                            HMC-IN-12
                                                                                                               C98970
41290
                      03
                                                          PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
                            HMC-IN-13
HMC-IN-14
                                                                                                              C98970
41300
                      03
41310
                                                                                                              C98970
                      0.5
                            HMC-IN-15
                                                                                                              C98970
                                                          PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
                                                                                                              C98970
                      03
41530
                            HMC-IN-16
41340
                            HMC-IN-17
                                                                                                               C98970
                            HMC-IN-I8
                                                                                                              C98970
41350
                      0.3
41360
                            HMC-IN-19
                                                                                                              C98970
                      0.5
41370
                      05
                            HMC-IN-20
                                                          PICTURE S9051.
                                                                                                               C98970
                                                          PICTURE S9[ 5].
41 380
                      03
                            HMC-14-21
                                                                                                              C98970
41390
                      FILLER REC"FINES LIST-HMC-IN.
                                                                                                               C98970
41400
41410
                      0.5
                          HMC-IN OCCUPS 21 TIMES
                                                                                                               C98970
                                                          PICTURE S9[5].
PICTURE S9[6].
                                                                                                               C98970
                            HMC-FP U-IN
                                                                                                               C98970
41420
41430
                 02
                            FILLER
                                                          PICTURE X.
                                                                                                               C98970
41440
                            ISCHRONAL
                                                                                                               C98970
                02
                            FILLER
                                                          PICTURE XES J.
                                                                                                               C98970
                02
                TAPE-OUT-NI SYIC.
41600
          01
                                                                                                               C98970
                      LISI-HMC-NT.
41680
                02
41690
41700
                           HMC-NI-I
                                                          PICTURE S9[5].
PICTURE S9[5].
PICTURE S9[5].
                      03
                                                                                                               C98970
                                                                                                               C98970
                      0.5
41710
                      03
                            HMC-NI -3
                                                                                                               C98970
                                                          PICTURE S9(5).
PICTURE S9(5).
PICTURE S9(5).
PICTURE S9(5).
PICTURE S9(5).
41720
41730
                      05
                            HMC-NI-4
                                                                                                               C98970
41740
                      0.5
                            HMC-NI -6
                                                                                                               C98970
                            HMC-NI-7
                                                                                                              C98970
                      0.5
41760
                            HMC-N1-8
                                                                                                               C98970
                                                          PICTURE S9(5).
PICTURE S9(5).
PICTURE S9(5).
PICTURE S9(5).
PICTURE S9(5).
41770
                      0.5
                            HMC-NI-9
                                                                                                               C98970
                            HMC-NI -10
                                                                                                               C98970
41780
                      0.5
41790
                            HMC-NI-I1
                                                                                                              C98970
                                                                                                              C98970
                            HMC-NI-12
41800
                      03
                            HMC-NI -13
                      0.5
                                                                                                               C98970
41010
                                                          PICTURE S9[5].
PICTURE S9[5].
41020
                      03
                            HMC-NI -14
                                                                                                              C98970
                            HMC-NI-15
                                                                                                               C98970
41630
                      0.3
                                                          PICTURE 59(5).
PICTURE 59(5).
PICTURE 59(5).
                            HMC-NI-16
                                                                                                               C98970
                            HMC-NI -17
HMC-NI-18
                                                                                                               C98970
41850
                      0.5
                                                                                                               C98970
41060
                      03
41870
                            HMC-NI-19
                                                          PICTUPE S9(51. PICTUPE S9(51.
                                                                                                              C98970
                            HMC-N1-20
                                                                                                              C98970
                      0.3
41 680
                03 HMC-N1-20 PICTURE SQL53.
03 HMC-N1 PICTURE SQL53.
02 FILLER REPEFINES LIST-HMC-NI.
03 HMC-N1 OCCURS 21 TIMES PICTURE SQL53.
02 HMC-FREQ-101AL-NI PICTURE SQL61.
WDC-FREJ-DATA: NI SYNC.
41890
                                                                                                               098970
41891
                                                                                                               C98970
41692
41900
                                                                                                               C98970
                                                                                                               C98970
42000
          01
                      TABLE-WDC-FREG-NI.
03 WDC-FREG-NI-1
03 WDC-FFEG-NI-2
                                                                                                               C98970
42040
                02
                                                          PICTURE S9E93.
PICTUPE S9E93.
PICTURE S9E93.
PICTURE S9E93.
PICTURE S9E93.
42050
                                                                                                               C98970
42060
                                                                                                               C98970
                            WDC-FREG-NI-3
WDC-FREG-NI-4
42070
                      03
                                                                                                               C98970
42080
                      03
42090
                            WDC-FREU-NI-5
                                                                                                               C98970
                                                          PICTURE S9[9].
PICTURE S9[9].
PICTURE S9[9].
PICTURE S9[9].
                            WUC-FFEQ-NI-6
                                                                                                               C98970
42100
                      03
                            WUC-FPEU-NI-7
                                                                                                               C98970
                            WDC-FPEU-NI-8
WDC-FFEU-NI-9
WDC-FFEU-NI-10
WDC-FREU-HI-11
42120
                      0.5
                                                                                                               C98970
                                                                                                               C98970
42130
                      0.5
42140
                                                          PICTUPE S9[9].
                                                                                                               C98970
                                                          PICTURE S9[9].
PICTURE S9[9].
PICTURE S9[9].
                                                                                                               C98970
42150
                      03
42160
                            WOC-FREQ-NI-12
                                                                                                               C98970
42170
                      03
                            WDC-FFEU-NI-13
                                                                                                               E98970
                            WDC-FPEQ-NI-14
                                                                                                               C98970
                                                          PICTURE SOCO 1.
42180
                      0.3
                            WDC-FREQ-NI-15
                                                          PICTURE S9[9].
                                                                                                               C98970
```

```
03 WDC-FLEW-N1-16
                                                           PICTURE S9091.
                                                                                                               C98970
 42200
                                                           PICTURE S9[9].
PICTURE S9[9].
PICTURE S9[9].
                             WDC-FFEQ-N1-17
                                                                                                                C98970
 42210
                       03
 42220
                       03
                             WDC-FREU-N1-18
                                                                                                                C98970
                             WDC-FREW-N1-19
                                                                                                                C98970
 42230
                       0.5
 42240
                 03 WDC-FRIG-N1-20 PICTURE S90
03 WDC-FFEG-N1-21 PICTURE S90
02 FILLER REDEFINES TABLE-WDC-FREG-N1.
                                                           PICTURE S9091.
                                                                                                                C98970
                                                                                                                C98970
 42250
                                                                                                                C98970
 42251
 42252
                       03 WDC-FPEW-N1 OCCURS 21 TIMES PICTURE 59691.
                                                                                                               C98970
 42260
                       TOTAL-WOC-FREQ-NI
                                                           PICTURE S9093.
                                                                                                                C98970
 42000
42010
           01
                 NINE STAC.
                                                                                                                C 98970
                                                           PICTURE XC503 VALUE
                                                                                                                C98970
                             42620
                                                                                                                C98970
                 02 FILLEH
 42630
                                                                                                                C98970
 42640
                                                                                                                C98970
                 02 FILLER
 42650
                                                                                                                C98970
C98970
                 42060
 43010
           0.1
                                                                                                               C98970
C98970
 4 3020
                 02 FILLER
02 FILLER
                                                           PICTURE XC1201.
PICTURE XC101.
 43U30
                                                                                                                C98970
 43070
           01
                 SG-WIIC-FREO-N1-2 SYNC.
                                                                                                                C98970
                 02 FILLER
02 FILLER
                                                           PICTURE XC1203.
PICTURE XC103.
 43080
                                                                                                                C98970
 43090
                                                                                                               C98970
 43100
                 SG-WUC-FREQ-NI-3 SYNC.
           01
                                                                                                                C98970
 43110
                 02 FILLER
02 FILLER
                                                           PICTURE XC1203.
                                                                                                               C98970
C98970
 43120
 43130
           01
                 SG-AUC-FHEO-NT-4 SYNC.
                                                                                                                C98970
                 02 FILLER
02 FILLER
SG-WUC-FREO-N?-5 SYNC.
 43140
                                                           PICTURE XC 120 ).
                                                                                                               C98970
 43150
                                                           PICTURE XC10 3.
                                                                                                               C98970
 43160
           01
                                                                                                               C98970
 43170
                 02 FILLER
02 FILLER
                                                           PICTURE XC1203.
PICTURE XC103.
                                                                                                                C98970
                                                                                                               C98970
C98970
 43180
                 SG-WUC-PRED-N1-6 SYNC.
02 FILLEH
02 FILLER
 43190
                                                           PICTURE XC1203.
PICTURE XC103.
 43200
                                                                                                               C98970
 43210
                                                                                                               C98970
 43220
                 SG-WUL-FRED-ISC-1 SYNC.
                                                                                                               C98970
                 02 FILLEH
02 FILLEH
 43230
                                                           PICTURE X[120].
                                                                                                               C98970
                                                           PICTURE XC103.
                                                                                                               C98970
                 SG-WUL-FREO-1SC-2 SYNC.
02 FILLEH
02 FILLEH
43250
           01
                                                                                                               C98970
 43260
                                                           PICTURE XC1203.
                                                                                                               C98970
                                                           PICTURE XC 10 3.
                                                                                                               C98970
432A0
           01
                 SG-WUC-FREG-15C-3 SYNC.
                                                                                                               C98970
 43290
                 02 FILLEH
                                                          PICTURE X[120].
PICTURE X[10].
                                                                                                               C98970
 43330
                                                                                                               C98970
                SG-MUC-FREO-ISC-4 SYNC.

OZ FILLEN

OZ FILLEN

SG-MUC-FREO-ISC-5 SYNC.

OZ FILLEN

OZ FILLEN
43340
           01
                                                                                                               C98970
4 3 3 5 0
                                                           PICTURE X[120].
                                                                                                               C98970
43360
                                                           PICTURE XC103.
                                                                                                               C98970
43570
           01
                                                                                                               C98970
C98970
 43380
                                                           PICTURE XC1203.
43590
                                                           PICTURE XC103.
                                                                                                               C98970
 43400
           01
                 SG-WUL-FREQ-IS:-6 SYNC.
                                                                                                               C98970
43410
                 02 FILLER
                                                           PICTURE XC1203.
PICTURE XC103.
43420
                                                                                                               C98970
          PROCEDINE DIVISION .
OPEN-FILES.
50000
                                                                                                               C98970
 50010
                                                                                                               C98970
                NAFILES.

OPEN INPUT OUT-DATA, OUT-
WRITE HI-DATA FROM REPORT-1D.

ADD I TU NO-RIC-PRINT-NI.
REAU OUI-TITLES INTO NEW-PAGE
HEAU OUI-TITLLS INTO TITLE-LI
REAU OUI-TITLLS INTO WHEN-DIE
REAU OUT-TITLES INTO SG-WUC-
 50020
                                 INPUT OUT-DATA, OUT-TITLES, OUTPUT OUT-PRINT-NI.
                                                                                                               C98970
50050
                                                                                                               C98970
 50070
                                                                                                               C98970
                                           50100
                                                                                                               C98970
 50110
                                                                                                               C98970
 50120
                                                                                                               C98970
                                           50130
                                                                                                               C98970
                 REAU OUT-TITLES
50140
                                                                                                               C98970
                                                                                                               COASTO
                HI AD OUT-FILES
                                                                                                               CUMUTA
50170
                                                                                                               C44970
 50140
                 HEAD OUT-TITLES
                                                                                                               C98970
                                           INTO SG-WUC-FREQ-N1-2 AT END GO TO INF.
INTO SG-WUC-FREQ-N1-3 AT END GO TO INF.
INTO SG-WUC-FREQ-N1-4 AT END GO TO INF.
INTO SG-WUC-FREQ-N1-5 AT END GO TO INF.
501A1
                 READ OUT-TITLES
                                                                                                              C98970
50182
                READ OUT-TITLES
READ OUT-TITLES
READ OUT-TILES
                                                                                                               C98970
501A3
                                                                                                               C90970
                                                                                                               C98970
                                           INTO 5G-WUC-FREQ-NI-5 AT END GO TO 1NF.

INTO TITLE-LINE-ISC AT END GO TO 1NF.

INTO SG-WUC-FREQ-ISC-1 AT END GO TO INF.

INTO SG-WUC-FREQ-ISC-2 AT END GO TO INF.

INTO SG-WUC-FREQ-ISC-3 AT END GO TO INF.

INTO SG-WUC-FREQ-ISC-4 AT END GO TO INF.

INTO SG-WUC-FREQ-ISC-5 AT END GO TO INF.

INTO SG-WUC-FREQ-ISC-5 AT END GO TO INF.
                REAU OUT-TITLES
REAU OUT-TITLES
50185
                                                                                                               C98970
50190
                                                                                                              C98970
C98970
50200
50210
                 READ OUT-TITLES
                REAU OUT-TITLES HEAU OUT-TITLES
                                                                                                               C98970
50220
                                                                                                               C98970
50230
                 HEAD OUT-TITLES
                                                                                                               C98970
50240
                 HEAU OUT-TITLES
                                                                                                               C98970
50250
                HEAD OUT-TITLES
                                                                                                               C98970
51000
          INF.
                                                                                                              C98970
C98970
51010
51020
                HEAU OUT-DATA INTO DATA-IN, AT END GO TO CLOSE-FILES. IF ICENT IS NOT EQUAL TO IHI GO TO ERROR-1.
                                                                                                               C98970
                 WUC.
51030
                                                                                                               C98970
                MOVE ZEHO TO AGE-NUMBEH-NI.
MOVE WIL TO CHM-WUC.
MOVE SPACE TO NI-TITLE-FLAG.
ADD I TO NO-WLC.
51040
51050
                                                                                                              C98970
51060
51070
                                                                                                               C98970
```

WANTE LA

```
PERFORM RESET- WUC-FREG. MOVE ISUMHONAL TO CURISC.
  51080
                                                                                                                                                                                                                                   C98970
  51090
                                                                                                                                                                                                                                   C98970
                      NEXT-HMC.
  51100
                                                                                                                                                                                                                                   C98970
                                  MOVE HA'S TO CUR-HMC.
  51110
                                                                                                                                                                                                                                    C98970
                                  NOVE DACE TO NI-LINE-FLAG.
PEPFORM RESET-HMC-LINE-NI THRU END-RESET-NI.
                                                                                                                                                                                                                                   C98970
 51130
51140
                                  GO 10 ACC-HMC.
                                                                                                                                                                                                                                   C98970
 51200
51210
                       READ-DAIA.
                                                                                                                                                                                                                                    C98970
                                  PAGE TO SECOND TO SECOND TO SECOND SE
                                                                                                                                                                                                                                   C98970
  51215
                                                                                                                                                                                                                                   C98970
  51220
                                                                                                                                                                                                                                   C98970
   51230
                                                                                                                                                                                                                                   C98970
  51240
  51250
                                                                                                                                                THRU END-OL.
                                                                                                                                                                                                                                   C98970
                                  PERFORM ACCUM. WDC-DATA.
  51260
                                                                                                                                                                                                                                   C98970
                                  GO TO READ-DATA.
 51270
                                                                                                                                                                                                                                   C98970
                       CHECK-WUC.
                                                                                                                                                                                                                                   C98970
 51310
                                  IF WIG IS EQU. L TO CUR-WUC GO TO CHECK-HMC. PERFORM WRITE-WDC THRU END-WRITE-WDC.
                                                                                                                                                                                                                                    C98970
                                                                                                                                                                                                                                   C98970
  51330
                                  GO 10 HEXT-WIC.
                                                                                                                                                                                                                                   C98970
 51400
                      CHECK-HMC .
                                                                                                                                                                                                                                   C98970
                                   IF HMC IS EQUAL TO CUR-HMC GO TO ACC-HMC.
  51410
                                                                                                                                                                                                                                   C98970
                                                                                                                                                                                                                                   C98970
 51420
                                  PERFORM OUTPUT-LINE THRU END-OL.
                                  GO TO HEXT-HMC.
 51430
                                                                                                                                                                                                                                   C98970
  51500
                      RESET-HMC-LINE-N1.
                                                                                                                                                                                                                                   C98970
                      MOVE ZENO TO CNT.

RESET-HMC-LINC-1.

AUD 1 TO CNT.

MOVE ZENO TO IMC-NI [CNT].

IF CNT 1S LLST THAN NO-#DC-COLS GO TO RESET-HMC-LINE-1.

MOVE ZENO TO HMC-FREQ-TOTAL-NI.
 51510
                                                                                                                                                                                                                                   C98970
                                                                                                                                                                                                                                   C98970
 51530
                                                                                                                                                                                                                                   C98970
  51550
                                                                                                                                                                                                                                   C98970
 51560
51570
                                                                                                                                                                                                                                   C98970
                     END-HESET-NI. EXI..

WRITE-TITLE-NI.

ADD I ID PAGE-NUMBER-NI.

MOVE PAGE-NUMBER-NI TO PAGE-NO.

WRITE NI-DATA FROM NEW-PAGE.
                                                                                                                                                                                                                                   C98970
 51600
                                                                                                                                                                                                                                   C98970
 51610
                                                                                                                                                                                                                                   C98970
 51620
 51630
                                                                                                                                                                                                                                   CGAGTA
                                 WRITE NI-DATA FROM RENEFACE.

WHITE HI-DATA FROM TITLE-LINE-NI.

WHITE HI-DATA FROM WHEN-DISC-CODE-TITLE.

WHITE HI-DATA FROM SG-WUC-TITLE-1.

WRITE HI-DATA FROM SG-WUC-TITLE-2.
 51635
                                                                                                                                                                                                                                   C98970
 51640
                                                                                                                                                                                                                                  C98970
 51060
                                                                                                                                                                                                                                  C98970
 61070
                                                                                                                                                                                                                                   C98970
51680
                                                                                                                                                                                                                                  C98970
                                  WRITE HI-DATA FROM SG-#UC-TITLE-3.
WHITE HI-DATA FROM SG-#UC-TITLE-4.
WHITE HI-DATA FROM SG-WUC-TITLE-5.
 51690
                                                                                                                                                                                                                                  C98970
51700
51710
                                                                                                                                                                                                                                  C98970
                                 WRITE NI-DATA FROM SG-WUC-FREQ-NI-1.
WRITE VI-DATA FROM SG-WUC-FREQ-NI-2.
WRITE VI-DATA FROM SG-WUC-FREQ-NI-3.
WRITE NI-DATA FROM SG-WUC-FREQ-NI-3.
WRITE NI-DATA FROM SG-WUC-FREQ-NI-3.
51720
51721
                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                  C98970
 51722
                                                                                                                                                                                                                                  C98970
 51723
                                                                                                                                                                                                                                  C98970
                                  WRITE HI-DATA FHOM SG-WUC-FHEQ-NI-6.
ADD 14 10 NO-REC-PRINT-H1.
 51/25
                                                                                                                                                                                                                                  C98970
51730
                                                                                                                                                                                                                                  C98970
                               MOVE 14 TO E15.E-CHT-NI.
TE-TITLE-ISC.
ADD 1 TO PAGE-NUMBER-NI
                                                                                                                                                                                                                                  C98970
51800
                      WHI
                                                                                                                                                                                                                                  C98970
 51810
                                                                                                                                                                                                                                  C98970
                                ADD 1 10 PAGE-NUMBER-NI TO PAGE-NO.

WRITE NI-DATA FROM NEW-PAGE.

MOVE CURE-WUC TO WUC-15C.

WRITE NI-DATA FROM TITLE-EINE-ISC.

WRITE NI-DATA FROM SG-WUC-TITLE-E.

WRITE NI-DATA FROM SG-WUC-TITLE-E.

WRITE NI-DATA FROM SG-WUC-TITLE-E.
51020
51830
                                                                                                                                                                                                                                  COROZO
51835
                                                                                                                                                                                                                                  C98970
51840
                                                                                                                                                                                                                                  C98970
 51050
                                                                                                                                                                                                                                  C98970
51860
                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                  C98970
                                WRITE NI-DATA FROM SG-WUC-TITLE-2
WRITE NI-DATA FROM SG-WUC-TITLE-3.
WRITE NI-DATA FROM SG-WUC-TITLE-4.
WRITE NI-DATA FROM SG-WUC-TITLE-5.
WRITE NI-DATA FROM SG-WUC-FREO-ISC-1.
WRITE NI-DATA FROM SG-WUC-FREO-ISC-2.
WRITE NI-DATA FROM SG-WUC-FREO-ISC-3.
KRITE NI-DATA FROM SG-WUC-FREO-ISC-4.
51880
                                                                                                                                                                                                                                  C98970
51890
                                                                                                                                                                                                                                  C98970
51400
                                                                                                                                                                                                                                  C98970
51910
                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                  C98970
51450
                                                                                                                                                                                                                                  C98970
51440
                                                                                                                                                                                                                                  C98970
                                 WRITE HI-DATA FROM SG-WUC-FREG-15C-5.
WHITE NI-DATA FROM SG-WUC-FREG-15C-6.
 51450
                                                                                                                                                                                                                                  C98970
51960
                                                                                                                                                                                                                                  COROZO
                                  ADD 14 TO NO-REC-PRINT-N1.
51470
                                                                                                                                                                                                                                  C98970
                     MOVE 14 TO LINE-CHT-HI.
OUTPUT-LINE-OF-NI-DATA.
51 YA0
                                                                                                                                                                                                                                  C98970
52200
                                                                                                                                                                                                                                  C98970
52220
                                 MOVE ZENO TO CVT.
                                                                                                                                                                                                                                  C98970
                     OUTPUT-LINE-NI-A.
ADD 1 TO CHI.
52430
                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                  C98970
                                ADD 1 TO CHI.

MOVE HMC-NI (C JT I TO MMC-FREO-RPT (CNT).

IF LNT 1S LEST THAN NO-WDC-COLS GO TO OUTPUT-LINE-NI-A.

MOVE HMC-FREO-TOTAL-NI TO HMC-FREO-TOTAL-RPT.

IF LINE-CNT-NI IS GHEATER THAN LINE-PAGE AND CURISC IS EQUAL

TO TWO. PERFOR 4 WRITE-TITLE-NI.

IF LINE-CNT-NI IS GREATER THAN LINE-PAGE AND CURISC IS EQUAL

TO OME PERFORM WRITE-TITLE-ISC.

WHITE NI-DATA FROM HMC-FREO-LINE.

ADD 1 TO NO-RETOTE-NI.
52250
                                                                                                                                                                                                                                  C98970
52260
                                                                                                                                                                                                                                  C98970
52390
52.192
                                                                                                                                                                                                                                  C98970
52394
                                                                                                                                                                                                                                 C98970
52340
                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                 C98970
52400
                                                                                                                                                                                                                                 C98970
52410
                                                                                                                                                                                                                                 C98970
                                ADD I TO LINE-CHT-NI. MOVE SPACE TO NI-LINE-FLAG.
52415
                                                                                                                                                                                                                                 C98970
52420
```

```
END-OUTPUT-LINE-NI-DATA. EXIT.
52590
                                                                                                                                                                             C98970
53100
                 WRITE-WDC .
                                                                                                                                                                             C98970
                          MOVE WDC-FREG-N1-2 TO WOC-FREG-RPT-2.
MOVE WDC-FREG-NI-4 TO WDC-FREG-RPT-4.
53110
                                                                                                                                                                              C98970
                                                                                                                                                                             C98970
53120
                         MOVE WOC-FREQ-NI-6 TO WOC-FREQ-RPT-6.
MOVE WOC-FREQ-NI-8 TO WOC-FREQ-RPT-8.
MOVE WOC-FREQ-NI-10 TO WOC-FREQ-RPT-10.
53140
53150
                                                                                                                                                                             C98970
                                                                                                                                                                             C98970
                         MOVE WOC-FREG-NI-10 TO WOC-FREG-RPT-10.

MOVE WOC-FREG-NI-12 TO WOC-FREG-RPT-12.

MOVE WOC-FREG-NI-14 TO WOC-FREG-RPT-14.

MOVE WOL-FREG-NI-16 TO WOC-FREG-RPT-16.

MOVE WDL-FREG-NI-18 TO WOC-FREG-RPT-18.

MOVE WDL-FREG-NI-20 TO WOC-FREG-RPT-20.

MOVE TOTAL-WDC-FREG-NI TO TOTAL-WDC-FREG-RPT.

WRITE !!I-DATA FROM WDC-FREG-LINE-RPT.
53160
                                                                                                                                                                              C98970
53170
                                                                                                                                                                             C98970
 53180
                                                                                                                                                                              C98970
53190
                                                                                                                                                                             C98970
 53200
                                                                                                                                                                              C98970
53210
                                                                                                                                                                             C98970
               WRITE || II-DATA FROM WOC-FREG-LINE-RPT.

MOVE WDC-FREG-NI-1 TO WDC-FREG-RPT-1.

MOVE WDC-FREG-NI-3 TO WOC-FREG-RPT-3.

MOVE WDC-FREG-NI-5 TO WDC-FREG-RPT-3.

MOVE WDC-FREG-NI-7 TO WDC-FREG-RPT-7.

MOVE WDC-FREG-NI-1 TO WDC-FREG-RPT-11.

MOVE WDC-FREG-NI-13 TO WDC-FREG-RPT-11.

MOVE WDC-FREG-NI-15 TO WDC-FREG-RPT-15.

MOVE WDC-FREG-NI-15 TO WDC-FREG-RPT-15.

MOVE WDC-FREG-NI-17 TO WDC-FREG-RPT-17.

MOVE WDC-FREG-NI-19 TO WDC-FREG-RPT-19.

MOVE WDC-FREG-II-19 TO WDC-FREG-RPT-19.

MOVE WDC-FREG-II-10 TO WDC-FREG-RPT-19.

WRITE NI-OATA FROM WOC-FREG-LINE-2-RPT.

AOO 2 TO NO-REC-PRINT-NI.

END-WRITE-WDC. EXII.
                                                                                                                                                                              C98970
 53220
 53230
                                                                                                                                                                              C98970
 53240
                                                                                                                                                                              C98970
                                                                                                                                                                              C98970
 53250
                                                                                                                                                                              C98970
 53260
 53270
                                                                                                                                                                              C98970
                                                                                                                                                                              C98970
 53280
 53290
                                                                                                                                                                              C98970
 53300
                                                                                                                                                                              C98970
 53310
                                                                                                                                                                              C98970
 53320
                                                                                                                                                                              C98970
                                                                                                                                                                              C98970
 53330
                                                                                                                                                                              C98970
 53350
                                                                                                                                                                              C98970
                OUTPUT-LINE.

IF N1-LINE-FLAG IS EQUAL TO SPACE 60 TO END-OL.

IF HI-TITLE-FLAG IS EQUAL TO SPACE AND CURISC IS EQUAL TO ONE PERFORM WHITE-TITLE-ISC.
53700
53/10
                                                                                                                                                                              C98970
53720
53722
                                                                                                                                                                              C98970
                                                                                                                                                                              C98970
                          THE NITTITLE-FLAG IS EQUAL TO SPACE AND CURISC IS EQUAL TO TWO PERFORM WRITE-TITLE-NI.
 53724
                                                                                                                                                                              C98970
                                                                                                                                                                              C98970
 53726
                          MOVE ONE TO NI-TITLE-FLAG.
PERFORM OUTPUT-LINE-OF-NI-DATA THRU
LND-OUTPUT-LINE-NI-OATA.
 53730
53740
53/50
                                                                                                                                                                              COROZO
                                                                                                                                                                              C98970
                          MOVE SPACE TO NI-LINE-FLAG.
                                                                                                                                                                              C98970
                ENO-OL. EXIT.
ERHUR-1.
 53790
                                                                                                                                                                              C98970
 54900
                                                                                                                                                                              C98970
                          DISPLAY : INPUT DATA OUT OF SEQUENCE : UPON CONSOLE.
 54910
                                                                                                                                                                              CORSTO
               OISPLAT: INFO: DATA CLOSE OISPLAT: INFO: DATA CLOSE FILES.

PERFORM WRITE- 1DC.

DISPLAY: NO OF W.U.C.: NO-WUC UPON CONSOLE.

OISPLAY: NO NI PRINT HEC: NO-REC-PRINT-NI UPON CONSOLE.

OISPLAY: END OF JOB C9897: UPON CONSOLE.

CLOSE OUT-DAT/.
 55000
                                                                                                                                                                              C98970
 55010
                                                                                                                                                                              C98970
 55165
                                                                                                                                                                              C98970
 55180
                                                                                                                                                                              C98970
                                                                                                                                                                              C98970
 55190
 55200
                                                                                                                                                                               C98970
 55240
                                        OUT-TITLES WITH LOCK.
 55250
                                                                                                                                                                              C98970
                                                                                                                                                                              C98970
                          GORACK.
 55290
                ACC-HMC.
AOO HMC-IN-1
 61500
                                                                                                                                                                              C98970
                                                          TO HMC-NI-1.
                                                                                                                                                                              C98970
 61510
                          ADD HMC-IN-2
AOD HMC-IN-3
                                                          TO HMC-NI-2.
TO HMC-NI-3.
                                                                                                                                                                               C98970
                                                                                                                                                                              C98970
 61530
                          ADO HMC-IN-4
ADO HMC-IN-5
AOO HMC-IN-6
                                                          TO HMC-NI-4.
61540
                                                                                                                                                                               C98970
 61550
                                                                                                                                                                               C98970
                                                           TO HMC-N1-6.
                                                                                                                                                                              C90970
61560
                                                          TO HMC-NI-7.
 61570
                          A00 HMC-1N-7
                                                                                                                                                                              C90970
                          AOO HMC-IN-8
                                                          TO HMC-N1-8.
                                                                                                                                                                              C98970
 61580
 61590
                          AOD HMC-IN-9 TO HMC-NI-9.
AOD HMC-IN-10 TO HMC-NI-10.
                                                                                                                                                                              C98970
                         AON HMC-IN-10 TO HMC-NI-10.

ADD HMC-IN-11 TO HMC-NI-11.

ADD HMC-IN-12 TO HMC-NI-12.

AOO HMC-IN-13 TO HMC-NI-13.

AOO HMC-IN-13 TO HMC-NI-13.

AOO HMC-IN-15 TO HMC-NI-14.

ADO HMC-IN-16 TO HMC-NI-16.

AOO HMC-IN-17 TO HMC-NI-17.

AOO HMC-IN-18 TO HMC-NI-18.

AOO HMC-IN-19 TO HMC-NI-19.

AOO HMC-IN-20 'O HMC-NI-20.

AON HMC-IN-21 TO HMC-NI-21.

AON HMC-IN-21 TO HMC-FREQ-TOTAL-NI.

MOVE ONE TO NI-LINE-FLAG.

GO IO HEAO-DATA.
 61600
                                                                                                                                                                               C98970
 61610
 61620
                                                                                                                                                                              C98970
 61630
                                                                                                                                                                              C90970
 61640
                                                                                                                                                                              C98970
 61650
                                                                                                                                                                              C98970
 61060
                                                                                                                                                                              C98970
 61670
                                                                                                                                                                              C98970
 61680
61690
61700
                                                                                                                                                                              C98970
                                                                                                                                                                              C98970
61710
61720
61730
                                                                                                                                                                              C98970
                                                                                                                                                                              C98970
                                                                                                                                                                               C98970
 61740
                                                                                                                                                                               C98970
 61800
                 ACCUM-WUC-DATA.
                                                                                                                                                                               C98970
                         UM-WLC-OATA.

AOD HMC-IN-1 TO WOC-FREG-NI-1.
AOD HMC-IN-2 TO WOC-FREG-NI-2.
AOD HMC-IN-4 TO WOC-FREG-NI-3.
ADD HMC-IN-4 TO WOC-FREG-NI-5.
ADD HMC-IN-6 TO WDC-FREG-NI-6.
AOD HMC-IN-7 TO WDC-FREG-NI-6.
AOD HMC-IN-7 TO WDC-FREG-NI-7.
 61810
                                                                                                                                                                               C98970
 61820
                                                                                                                                                                               C98970
 61830
                                                                                                                                                                               C98970
 61840
                                                                                                                                                                               C98970
 61850
                                                                                                                                                                               C98970
 61860
 61870
                                                                                                                                                                               C98970
                          ADD HMC-IN-8 TO WDC-FREG-NI-8.

ADD HMC-IN-9 TO WDC-FREG-NI-9.

ADD HMC-IN-10 TO WDC-FREG-NI-10.
 61880
                                                                                                                                                                               C98970
 61890
                                                                                                                                                                               C98970
 61900
                                                                                                                                                                               C98970
61410
                           ADD HMC-IN-II TO WOC-FREQ-NI-11.
                                                                                                                                                                               C98970
```

```
ADD HMC-1N-12 TO WDC-FREO-NI-12.
61930 ADD HMC-IN-13 TO WDC-FREO-NI-13.
61940 ADD HMC-IN-14 TO WDC-FREO-NI-15.
61950 ADD HMC-IN-15 TO WDC-FREO-NI-15.
61950 ADD HMC-IN-15 TO WDC-FREO-NI-16.
61970 ADD HMC-IN-16 TO WDC-FREO-NI-16.
61970 ADD HMC-IN-17 TO WDC-FREO-NI-17.
61980 ADD HMC-IN-19 TO WDC-FREO-NI-18.
61990 ADD HMC-IN-19 TO WDC-FREO-NI-19.
62000 ADD HMC-IN-20 TO WDC-FREO-NI-20.
62010 ADD HMC-IN-21 TO WDC-FREO-NI-21.
62020 ADD HMC-IN-21 TO WDC-FREO-NI-21.
62020 ADD HMC-FREO-IN TO TOTAL-WDC-FREO-NI.
70510 MOVE ZENO TO WDC-FREO-NI-2.
70530 MOVE ZENO TO WDC-FREO-NI-2.
70530 MOVE ZENO TO WDC-FREO-NI-3.
70540 MOVE ZENO TO WDC-FREO-NI-6.
70570 MOVE ZENO TO WDC-FREO-NI-6.
70570 MOVE ZENO TO WDC-FREO-NI-6.
70570 MOVE ZENO TO WDC-FREO-NI-6.
70590 MOVE ZENO TO WDC-FREO-NI-1.
70580 MOVE ZENO TO WDC-FREO-NI-1.
70620 MOVE ZENO TO WDC-FREO-NI-1.
70630 MOVE ZENO TO WDC-FREO-NI-1.
70640 MOVE ZENO TO WDC-FREO-NI-1.
70650 MOVE ZENO TO WDC-FREO-NI-1.
70660 MOVE ZENO TO WDC-FREO-NI-1.
70650 MOVE ZENO TO WDC-FREO-NI-1.
70660 MOVE ZENO TO WDC-FREO-NI-1.
70660 MOVE ZENO TO WDC-FREO-NI-1.
70660 MOVE ZENO TO WDC-FREO-NI-1.
70670 MOVE ZENO TO WDC-FREO-NI-1.
70680 MOVE ZENO TO WDC-FREO-NI-1.
707010 MOVE ZENO TO WDC-FREO-NI-1.
707020 MOVE ZENO TO WDC-FREO-NI-1.
707030 MOVE ZENO TO WDC-FREO-NI-1.
707040 MOVE ZENO TO WDC-FREO-NI-1.
707050 MOVE ZENO TO WDC-FREO-NI-1.
707070 MOVE ZENO TO WDC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C98970
C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C98970
C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C98970
C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORGTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C98970
C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C98970
C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C98978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C98970
C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1440 CDS
    //IPR.TU12
//TPR.TU14
//TPR.TU24
//TPR.TPRIN
T/P TU12
T/P TU14
T/P TU24
/* PL/
                                                                                                          DD *,SPACE>(TRK, (1,17) 10101302130
                                                                                                          10101302130
                                                                            1100130R000
PLACE T/P CONTHOL CARDS BEFORE THIS CARD
```

6.8 PROGRAMS FOR MANHOUR AND NOR TIME ANALYSES

6.8.1 PREPROCESSOR - TASK II

```
:,PRTY>02,TYPRUN>HOLD
                       01.1 G WANG
//T9897N JOH
                       P9655L, TIME>15. ACCT>035323007
 //C98978 EXEC
                       //CHG. TU14
                                                                                                            CT14
CT14
                                                                                                              T14
 //CHG. TU22
                                                                                                            CT22
                                                                                                            CT22
                                                                                                              T22
 //CHG. TU24
                                                                                                            CT24
                                                                                                            CT24
                       I+F7:J+F7:K+F7:L+F7:M+F7:N+F7:O+F7:P+F7:Q+F7:R+F7:S+F7]
DU *,SPACE>ECYL:[1:1]3
COMBINE COMPILE G. WANG.
 //CHG. INPUT
                                                                                                              1440 CDS
          COMUINE COMPILE
DATE-WRITIEN. 20 APR 72.
 00000
                                                                                                                 C98970
C98970
01040
          REMARKS.
PHASE 11 PROGRAM
01050
                                                                                                                 C98970
01060
                                                                                                                 C98970
          TASK 24 MANHOUR AND NOR TIME ANALYSIS.
ENVIRONMENT DIVISION.
01070
                                                                                                                 C98970
02000
                                                                                                                 C98970
           CONFIGURATION SECTION.
U2010
                                                                                                                 C98979
          SOURCE-COMPUTER, 18M-360,
OBJECT-COMPUTER, 18M-360,
U2U20
                                                                                                                 C98970
02030
                                                                                                                 C98970
           INPUT-OUTPUT SECTION.
                                                                                                                 C98970
          FILE-CONTHUL.
02110
                                                                                                                 C98970
                 SELECT IN-FILE-U-B
                                                              ASSIGN TO UT-S-TU14
02120
                                                                                                                 C98970
                 RESERVE 1 ALTERNATE AREA. SELECT IN-FILE-ISC
02130
U2140
0215U
                                                              ASSIGN TO DA-S-OTHI
                SELECT IN-FILE-ISC
RESERVE I ALTERNATE AREA.
SELECT MSG-FILE
RESERVE 1 ALTERNATE AREA.
SELECT OUT-FILE-I
RESERVE 1 ALTERNATE AREA.
SELECT OUT-FILE-2
RESERVE 1 ALTERNATE AREA.
                                                                                                                 C98970
                                                                                                                 C98970
                                                                                                                 C98970
C98970
02160
                                                              ASSIGN TO DA-S-DT02
02180
                                                              ASSIGN TO UT-S-TU24
                                                                                                                 C98970
U2190
                                                                                                                 C98970
                                                              ASSIGN TO UT-S-TU22
02200
02210
                                                                                                                 C98970
          DATA DIVISION,
10000
                                                                                                                 C98970
10010
          FILE SECTION.
FD IN-FILE-D-B
10100
                                                                                                                 C98970
                 HECURDING MODE IS F
BLOCK CUNTAINS 40 RECORDS
10130
                                                                                                                 C98970
                RECORD CONTAINS TO
LABLE RECORDS ARE OMITTED
DATA RECORDS ARE IN-REC-D-8.
                                                             CHARACTERS
                                                                                                                 C98970
10150
                                                                                                                 C98970
10160
                                                                                                                 C98970
10200
          01
                 IN-KEL-U-U SYNC.
                 02 FILLER
                                                           PICTURE XE 701.
10210
                                                                                                                 C98970
10220
                                                                                                                 C98970
                IN-FILE-ISC
RECURUING MODE IS F
11300
          FD
                                                                                                                 98970
11320
                                                                                                                 C98970
11350
                 BLOCK CUNTAINS 20 RECORDS
                                                                                                                 C98970
                HECORD CONTAINS BU
11340
                                                             CHARACTERS
                                                                                                                 C98970
11350
                                                                                                                 C98970
                DATA HECOHOS ARE IN-HEC-ISC. IN-HEC-ISC SYNC.
11400
                                                                                                                 C98970
                UZ FILLER
                                                           PICTURE XE 80 3.
12100
          FU
                                                                                                                 COAGTO
                HECORULING MODE IS F
BLOCK CONTAINS TO RECORDS
RECORD CONTAINS 20
                                                                                                                 C98970
12120
12130
                                                                                                                 C98970
                                                            CHARACTERS
12140
                                                                                                                 C98970
                LABEL RECORUS ARE OMITTED UATA RELORDS ARE OUT-REC-1. OUT-REC-1 SYNC.
12160
                                                                                                                 C98970
          01
12200
                                                                                                                 C98970
                UZ FILLEH
12210
13300
                                                           PICTURE XE 20 1.
                                                                                                                 C98970
               02 FILLER
MSG-FILE
RECORUING MOLE IS F
BLOCK CONTAINS 20 RECORDS
RECORU CONTAINS 80
LABEL RECORDS ARE STANDARD
DATA HECORDS ARE MSG-REC.
MSG-REC SYNC.
02 FILLER
RECORUING MOTE IS F
RLOCK CONTAINS 90 RECORDS
RECORU CONTAINS 20
LABEL RECORD. ARE OMITTED
DATA RECORDS ARE OUT-REC-2.
02 FILLER
                                                                                                                 C98970
13320
                                                                                                                 C98970
13330
                                                                                                                 C98970
13340
                                                            CHARACTERS
                                                                                                                 C98970
13350
13360
                                                                                                                 C98970
13400
          01
                                                                                                                 C98970
13410
                                                           PICTURE XCAO ..
                                                                                                                C98970
C98970
14100
          FU
14120
                                                                                                                 C98970
                                                                                                                 C98970
14140
                                                            CHARACTERS
                                                                                                                 C98970
14160
                                                                                                                C98970
          01
14200
                                                                                                                 C98970
          02 FILLEH PICTURE X PICTURE X VALUE SPACE.
77 MUC-FLAG SYNC PICTURE X VALUE SPACE.
77 CUR-65 SYNC PICTURE X VALUE SPACE.
77 DATA-65 SYNC PICTURE X VALUE SPACE.
77 DATA-65 SYNC PICTURE X VALUE SPACE.
                                                           PICTURE XC 20 1.
                                                                                                                C98970
30000
30012
                                                                                                                 C98970
30015
                                                                                                                C98970
30016
30017
                                                                                                                C98970
                                                                                                                C98970
                CURRELK SYNC
                                                           PICTURE 999.
                                                                                                                C98970
```

```
30030 77 CUR-SER-NO SYNC
30040 77 CUR-15C SYNC
30050 77 KNT SYNC COMPUTATIONAL
30060 77 WEEK-TEMP SYNC
30070 77 DELTA-WEEK SYNC
30000 77 DELTA-FLT-HRJ SYNC
30090 77 CUR-FLT-HRS SYNC
                                                                                                                                                                                             PICTURE X.6).
PICTURE X.
PICTURE S999.
PICTURE S999.
PICTURE S99999.
PICTURE S999999.
PICTURE S999999.
PICTURE S999 VALUE ZERO.
PICTURE S999 VALUE ZERO.
PICTURE S997 VALUE ZERO.
PICTURE S997 VALUE ZERO.
PICTURE S917 VALUE ZERO.
PICTURE S917 VALUE ZERO.
                                                                                                                                                                                               PICTURE XEBJ.
                                                                                                                                                                                                                                                                                                                                                                             C98970
                                                                                                                                                                                                                                                                                                                                                                             C98970
                                                                                                                                                                                                                                                                                                                                                                              C98970
                                               DELTA-FLT-HRS SYNC

CUR-FLT-HRS SYNC

CUR-FLT-HRS SYNC

PICTURE S999999.

FLAG SYNC COMPUTATIONAL

HMC-TEMP SYNC:

NO-HMC SYNC TOMPUTATIONAL

NO-HEC-1 SYNC

NO-HEC-2 SYNC

MAX-NO-HMC 5'NC COMPUTATIONAL

CNY SYNC PICTURE S999

CNE SYNC

THO SYNC

PICTURE X VALUE 121.

PICTURE X VALUE 121.

PICTURE X VALUE 131.

FOUN

SYNC

PICTURE X VALUE 131.

FOUN

SYNC

PICTURE X VALUE 131.

PICTURE X VALUE 131.

FOUN

SYNC

PICTURE X VALUE 131.

PICTURE X VALUE 191.

SSC-FLAG

SYNC

PICTURE X VALUE 181.

PICTURE X VALUE SPACE.

PICTURE XXX.

PICTURE XXX.

SUM-MAN-HR SYNC

PICTURE XXX.

SUM-MAN-HR SYNC

PICTURE XXX.

PICTURE XXX.

PICTURE XXX.

SUM-MAN-HR SYNC

PICTURE XX.

PICTURE XXX.

PICTURE XX.

PICTURE XX.
                                 77
77
77
77
77
77
77
                                                                                                                                                                                                                                                                                                                                                                               C98970
                                                                                                                                                                                                                                                                                                                                                                             C98970
  30100
                                                                                                                                                                                                                                                                                                                                                                             C98970
                                                                                                                                                                                                                                                                                                                                                                             C98970
  30110
                                                                                                                                                                                                                                                                                                                                                                             C98970
   30120
                                                                                                                                                                                                                                                                                                                                                                             C98970
  30130
   30140
  30150
                                                                                                                                                                                                                                                                                                                                                                              C98970
  30160
                                 77
77
77
   30170
                                                                                                                                                                                                                                                                                                                                                                              C98970
 30380
                                                                                                                                                                                                                                                                                                                                                                             C98970
  30390
   30391
                                                                                                                                                                                                                                                                                                                                                                             COAGTO
                                 77
                                                                                                                                                                                                                                                                                                                                                                             C98970
  30.592
                                                                                                                                                                                                                                                                                                                                                                             C98970
                                  77
77
77
77
                                                                                                                                                                                                                                                                                                                                                                             C98970
  30410
   30420
  30430
                                                                                                                                                                                                                                                                                                                                                                             C98970
                                                                                                                                                                                                                                                                                                                                                                             C98970
 30500
                                                                                                                                                                                                                                                                                                                                                                             C98970
   30506
                                  77
 30510
 30520
                                  77
77
77
  30530
                                                                                                                                                                                                                                                                                                                                                                             C98970
                                                                                                                                                                                                                                                                                                                                                                             C98970
 30540
                                                                                                                                                                                                                                                                                                                                                                             C98970
                                   01
                                                                                                                                                                                                                                                                                                                                                                             C98970
  31010
  31020
                                                                                                                                                                                                                                                                                                                                                                             C98970
   31030
                                                                                                                                                                                                                                                                                                                                                                             C98970
 31040
  31050
                                  01
                                                      1SC-A-C SYNC

02 FILLER

02 1SC-TN

02 FILLER

02 1SC-WK

02 FILLER
                                                                                                                                                                                               PICTURE XX.
PICTURE XCO).
PICTURE XX.
   31060
                                                                                                                                                                                                                                                                                                                                                                              C98970
 31070
   31080
                                                                                                                                                                                                                                                                                                                                                                              C98970
                                                                                                                                                                                                PICTURE 999.
PICTURE XC653.
 31090
                                                                                                                                                                                                                                                                                                                                                                             C98970
                                                                                                                                                                                                                                                                                                                                                                             C98970
  31100
                                                    02 FILLER
FILLEN SYNC,
02 FILLEH OCCURS 36 TIMES.
03 ISC-AC-TN PICTURE X[8].
03 ISC-AC-WK COMPUTATIONAL PICTURE S999.
DAYA-BANK-IMPUT SYNC.
PICTURE X[9].
   31200
                                   01
 31205
                                                                                                                                                                                                                                                                                                                                                                             C98970
                                                                                                                                                                                                                                                                                                                                                                             C98970
 31210
 31300
31310
                                  01
                                                                                                                                                                                                                                                                                                                                                                              C98970
                                                     02 FILLER
02 SERIAL-NO
02 WEEK
02 WUC
                                                                                                                                                                                                PICTURE XES3.
                                                                                                                                                                                                                                                                                                                                                                             C98970
                                                                                                                                                                                               PICTURE XEBJ.
PICTURE 999.
PICYURE XEBJ.
  31 320
                                                                                                                                                                                                                                                                                                                                                                              C98970
                                                                         WEEK
 31330
                                                                                                                                                                                                                                                                                                                                                                             C98970
                                                                         WUC-B REDEFINES WUC.
                                                  02 WUC-B REDEFINES WUC.

03 WUC-2

03 FILIER

02 FILLER

02 UNITS

02 MAN-MR

02 FILLER

02 NORS-HR

02 NORS-HR

03 FILLER

04 PICTURE S9(4).

05 PILLER

06 PICTURE S9(4).

07 PICTURE S9(4).

08 NORS-HR

09 PICTURE S9(4).

09 FILLER

00 FILLER

00 FILLER

01 FILLER

02 FILLER

03 FILLER

04 FICTURE

05 FILLER

06 FILLER

07 FILLER

08 FICTURE

09 WUC-OUY

09 PICTURE

09 PICTURE

00 WUC-OUY

00 PICTURE

01 FILLER

01 FILLER

02 FILLER

03 FILLER

04 FILLER

05 FILLER

06 FILLER

07 FILLER

08 FILLER

09 FILLER

09 FILLER

00 WUC-OUY

00 WUC-OUY

01 FILLER

01 FILLER

02 FILLER

03 FILLER

04 FILLER

05 FILLER

06 FILLER

17 FICTURE

18 FILTURE

19 FILTURE

10 FILTURE

10
  31350
31360
                                                                                                                                                                                                                                                                                                                                                                               C98970
                                                                                                                                                                                                PICTURE XX.
PICTURE XXX.
PICTURE X.
                                                                                                                                                                                                                                                                                                                                                                             C98970
 31370
31380
                                                                                                                                                                                                                                                                                                                                                                             C98970
C98970
                                                                                                                                                                                                PICTURE XXX.
   51390
                                                                                                                                                                                                                                                                                                                                                                              C98970
 31400
                                                                                                                                                                                                                                                                                                                                                                             C98970
   31401
                                                                                                                                                                                                                                                                                                                                                                              C98970
 31402
                                                                                                                                                                                                                                                                                                                                                                              C98970
   31403
  31404
                                                                                                                                                                                                                                                                                                                                                                              COAGTO
  31405
                                                                                                                                                                                                                                                                                                                                                                             C98970
 31420
31450
                                                                                                                                                                                                                                                                                                                                                                             C98970
C98970
                                                                                                                                                                                                PICTURE 9.
 31460
31470
                                                                                                                                                                                                                                                                                                                                                                              C98970
                                                                                                                                                                                                                                                                                                                                                                              COASTO
   31500
                                   01
                                                    OUT-DAYA SYI.C.

02 WUC-OUY

02 HMC-OUY

02 FILLER

02 OBS

02 FILLER

02 15C-OUY

02 FILLER

02 DATA-TYPE

02 FILLER

03 FILLER

04 PICTURE X VALUE SPACE.

05 PICTURE X VALUE SPACE.

06 PICTURE X VALUE SPACE.

07 PICTURE X VALUE SPACE.

08 PICTURE X VALUE SPACE.

09 PICTURE X VALUE SPACE.

10 PICTURE X VALUE SPACE.

10 PICTURE X VALUE SPACE.

11 PICTURE X VALUE SPACE.

12 PICTURE X VALUE SPACE.
                                                                                                                                                     PICTURE XC53.
PICTURE XXX.
PICTURE X VALUE SPACE.
PICTURE S9653.
PICTURE X VALUE SPACE.
 31510
                                                                                                                                                                                                                                                                                                                                                                             C98970
                                                                                                                                                                                                                                                                                                                                                                              C98970
  31530
                                                                                                                                                                                                                                                                                                                                                                              C98970
 31540
31550
                                                                                                                                                                                                                                                                                                                                                                              C98970
 31560
                                                                                                                                                                                                                                                                                                                                                                             C98970
                                                                                                                                                                                                                                                                                                                                                                             C98970
 31570
 31590
                                                                                                                                                                                                                                                                                                                                                                              C98970
                                  01 NINE SYNC.
02 FILLER
                                                                                                                                                                                                                                                                                                                                                                              C98970
  31800
                                                                                                                                            C98970
C98970
 31610
                                                    SPEC - BUC SYNC.

05 C1-MPF

05 C1-MA1-1

05 C1-MA1-3

05 C1-PER1

05 C1-PER1

05 C1-PREFLT

05 C1-PREFLT

05 C1-SMPCST
  31820
                                   01
                                                                                                                                                                                                                                                                                                                                                                                C98970
   32000
                                                                                                                                                       PICTURE XE53.
PICTURE XE53.
PICTURE XE53.
PICTURE XE53.
  32010
                                                                                                                                                                                                                                                                                                                                                                               C98970
   32020
   32030
                                                                                                                                                                                                                                                                                                                                                                                C98970
   32040
                                                                                                                                                         PICTURE X[5].
PICTURE X[5].
PICTURE X[5].
   32050
                                                                                                                                                                                                                                                                                                                                                                                C98970
                                                                                                                                                                                                                                                                                                                                                                              C98970
   32060
                                                                                                                                                                                                                                                                                                                                                                                C98970
                                                                                                                                                           PICTURE XES 1.
  32UA0
                                                                                                                                                                                                                                                                                                                                                                                C98970
```

```
05 GAP-WK-1
05 GAP-WK-2
05 FILLER
PROCEDURE DIVISION.
32100
                                                                    PICTURE 99.
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
 32120
                                                                     PICTURE XE313.
                                                                                                                                                                      C98970
 50000
                                                                                                                                                                     C98970
               PROCEDURE DIVISION.

OPEN-FILES.

OPEN INPUT IN-FILE-D-B. IN-FILE-ISC.

OPEN OUTPUT MSG-FILE.

OPEN OUTPUT OUT-FILE-1, OUT-FILE-2.

PERFORM READ-ISC-A-C THRU END-RIAC.
  50010
 50020
                                                                                                                                                                     C98970
  50030
                                                                                                                                                                     C98970
 50040
                                                                                                                                                                      C98970
 50050
                                                                                                                                                                     C98970
                READ-INITIAL.
 50060
                                                                                                                                                                     C98970
                         READ IN-FILE-D-B INTO DATA-BANK-INPUT.
 50070
                                                                                                                                                                     C98970
50U80
                                                            AT END GO TO CLOSE-FILES.
                                                                                                                                                                     C98970
                CHECK-DATA.
 50100
                                                                                                                                                                     C98970
                       IF IDENT IS EQUAL TO 3 AND WUC-2 IS EQUAL TO 1031 60 TO PROC-II-1.

IF IDENT IS EQUAL TO 3 AND WUC-2 IS EQUAL TO 1041 60 TO PROC-II-1.

IF IDENT IS EQUAL TO 3 AND WUC-2 IS GREATER THAN 1091 60 TO
 50120
                                                                                                                                                                     C98970
50130
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
 50150
                        PROC-11-2A.

IF IDENT IF EQUAL TO 4 GO TO PROC-11-2B.
GO TO READ-INITIAL.
-II-1.
 50160
                                                                                                                                                                     C98970
 50170
                                                                                                                                                                     C98970
 50180
                                                                                                                                                                     C 98970
 50190
                                                                                                                                                                     C98970
                PROC-II-I.
 50200
                                                                                                                                                                     C98970
                         PERFORM CHICK-ISCHRONAL THRU END-CI.
 50210
                                                                                                                                                                     C98970
                        PERFORM CH.CK-ISCHRONAL THRU E
MOVE ISCHRONAL TO CUR-ISC.
MOVE BLENT TO CUR-IC.
MOVE WLEK TO CURWEEK.
MOVE WELK TO CURWEEK.
MOVE SENIAL-NO TO CUR-SER-NO.
MOVE FET-HMS TO CUR-FET-HHS.
MOVE TWO T) CUR-65.
 50220
                                                                                                                                                                     C98970
 50222
                                                                                                                                                                     C98970
 50230
                                                                                                                                                                     C98970
 50240
                                                                                                                                                                     C98970
 50250
                                                                                                                                                                     C98970
 50251
 50252
                                                                                                                                                                     COROZO
                IF NORM-HR LESS
INIT-SET.
 50253
                                                                  THAN ZERO MOVE ONE TO CUR-65.
                                                                                                                                                                     C98970
 50260
                                                                                                                                                                     C98970
                        T-SET:

MOVE UNE TO FIT-FLAG.

IF WHE LOUNE TO CI-HUNET MOVE TWO TO PLY-PLAG.

IF WHE LOUNE TO CI-HUNET MOVE TWO TO PLY-PLAG.

IF WHE LOUNE TO CI-HUNDST MOVE TWO TO FLY-FLAG.

COMPUTE SU'-NORM > U.

IF FLY-FLAG EOUAL TO ONE AND NORM-HR GREATER THAN ZERO

MOVE NORM-HR TO SUM-NORM.

MOVE MAN-H: TO SUM-MAN-HR.
                                                                                                                                                                     C98970
00411
                                                                                                                                                                     690970
 50272
                                                                                                                                                                     C98970
50273
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
50275
                                                                                                                                                                     C98970
 50276
                                                                                                                                                                     C98970
50280
                                                                                                                                                                     C98970
               MOVE MAN-H.: TO SUM-MAN-HR.

ACC-SET.

REAU IN-FILE-D-B INTO DATA-BANK-INPUT
AT END GO TO CLOSE-FILES.

PERFORM CHICK-ISCHRONAL THRU RUN-CI.

IF ISCHRONAL IS NOT EQUAL TO CUR-ISC GO TO SET-BREAK.

IF IDENT NUT EQUAL TO CUR-ID GO TO SET-BREAK.

IF SUC NOT LOUAL TO CURWUC GO TO SET-BREAK.

IF SERIAL-10 NOT EQUAL TO CUR-SER-NO GO TO SET-BREAK.

MOVE TWO TO DATA-65.

IF NORM-HR LESS THAN ZERO MOVE ONE TO DATA-65.

GO TO CHEC -TYPE.
50290
                                                                                                                                                                     C98970
50300
50310
                                                                                                                                                                     C98970
50315
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
50322
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
50345
                                                                                                                                                                     C98970
50346
                                                                                                                                                                     C98970
50347
                        GO TO CHEC -TYPE.
                                                                                                                                                                     C98970
            GO TO CHEC -TYPE.

NOT-SP-TYPE.

SUBTRACI CURWEEK FROM WEEK GIVING WEEK-TEMP.

IF WEEK-TE.IP NOT GOUAL TO I

GO TO INTERNAL-BREAK.

ADD MAIN-HR TO SUM-MAN-HR.

MOVE ONE TO FLT-FLAG.

IF WUC EOUAL TO CI-PREFLT MOVE TWO TO FLT-FLAG.

IF WUC LOUAL TO CI-BPOST MOVE TWO TO FLT-FLAG.

IF WUC LOUAL TO CI-SHPOST MOVE TWO TO FLT-FLAG.

IF FLT-FLAG EOUAL TO ONE AND NORM-HR GREATER THAN ZERO

ACT NORM-HR TO SUM-NORM.

IF FLT-FLAG EOUAL TO TWO COMPUTE SUM-NORM > 0.

MOVE WEEK TO CURWEEK.

MOVE FET-R S TO CUR-FLT-HRS.

IF CUR-05 EQUAL TO TWO OR DATA-65 EQUAL TO TWO

MOVE IDENT TO CUR-ID.

GO TO ACC-SET.

SET-BREAK.

PERFORM WRITE-I THRU END-WRITE-1.

COMPUTE SUM-NORM > 0.

GO TO CHE(X-DATA.

INTERNAL-BREAK.

PERFORM WRITE-I THRU END-WRITE-1.
50348 NOT-SP-TYPE.
                                                                                                                                                                    C98970
50350
50360
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
50.380
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
50.390
50400
                                                                                                                                                                    C98970
50410
                                                                                                                                                                    C90970
50420
                                                                                                                                                                     C98970
                                                                                                                                                                    C98970
50425
                                                                                                                                                                    C90970
50440
                                                                                                                                                                    C98970
50442
50443
                                                                                                                                                                    C90970
50444
                                                                                                                                                                    C98970
50446
                                                                                                                                                                    C98970
50450
                                                                                                                                                                    C90970
                                                                                                                                                                    C98970
50460
50470
                                                                                                                                                                     C98970
50474
                                                                                                                                                                    C98970
50480
                                                                                                                                                                    C98970
              INTERNAL-BREAK.
PERFORM WRITE-I THRU END-WRITE-1.
50490
                                                                                                                                                                     C98970
50500
                                                                                                                                                                    C98970
                       MOVE WELK TO CURWEEK.

MOVE FET-I RS TO CUR-FET-HRS.

MOVE DATA-65 TO CUR-65.
50510
                                                                                                                                                                    C98970
50512
                                                                                                                                                                     C98970
50515
                                                                                                                                                                    C98970
                       MOVE IDENT TO CUR-ID. GO TO INIT-SET.
50516
                                                                                                                                                                    C98970
50520
                                                                                                                                                                    C98970
                        NOTE
50530
                                        WFITE NORM-HR AND MAN-HR TOTALS ON OUTPUT FILE.
                                                                                                                                                                    C98970
              WRITE-I.
MOVE CUR-ISC TO ISC-OUT.
50540
50550
                                                                                                                                                                    C98970
                       MOVE CURM.C TO WUC-OUT.

MOVE SPACE TO HMC-OUT.

IF FLT-FLAG EOUAL TO TWO GO TO WRITE-I-A.
50560
                                                                                                                                                                    C98970
50570
                                                                                                                                                                    C98970
                                                                                                                                                                    C98970
```

```
IF CUR-65 EQUAL TO ONE GO TO WRITE-1-A. MOVE SUM- ORM TO OBS. MOVE UNE TO DATA-TYPE. WRITE OUT-REC-2 FROM OUT-DATA. ADD 1 TO CO-REC-2.
50576
                                                                                                                                                              C98970
50580
                                                                                                                                                              C98970
50590
                                                                                                                                                              C98970
50600
                                                                                                                                                              C98970
50610
                                                                                                                                                              C98970
 50615
               WRITE-I-A
                                                                                                                                                              C98970
              MOVE SUM-MAN-HR TO 085,
MOVE 100 10 DATA-TYPE,
WRITE OUT REC-2 FROM OUT-DATA,
ADD 1 TO MO-REC-2.
END-WRITE-I. EXIT.
50620
                                                                                                                                                              C98970
50630
                                                                                                                                                              C98970
50640
                                                                                                                                                              C98970
50650
                                                                                                                                                              C98970
50660
                                                                                                                                                              C98970
51000
              CHECK-TYPE.
MOVE ONE O WUC-FLAG.
                                                                                                                                                              C98970
51010
                                                                                                                                                              C98970
                       MOVE UNE TO WUC-FLAG.

IF WUC EQUAL TO CI-MPF

IF WUC LQUAL TO CI-MAI-1

IF WUC LQUAL TO CI-MAI-2

IF WUC LQUAL TO CI-MAI-3

IF WUC LQUAL TO CI-PERI

IF WUC LQUAL TO CI-PERI

MOVE TWO TO WUC-FLAG.

IF WUC-FLAG.

IF WUC-FLAG.

IF WUC-FLAG.

IF WUC-FLAG.

IF WUC-FLAG.
51020
51030
                                                                                                                                                              C98970
51040
                                                                                                                                                              C98970
51050
                                                                                                                                                              C98970
51060
                                                                                                                                                              C98970
51070
51080
                                                                                                                                                             C98970
C98970
51090
                        SUBTRACT CURWEEK FROM WEEK GIVING WEEK-TEMP
                                                                                                                                                              C98970
             SP-TYPE.
51100
                      TYPE.

IF WUC LESS THAN CI-PERI AND WEEK-TEMP GREATER THAN GAP-WK-1

GO TO INTERNAL-BREAK.

IF WUC GREATER THAN CI-MA1-3 AND WEEK-TEMP GREATER THAN

GAP-Wh-2 GO TO INTERNAL-BREAK.

ADD MAN-H TO SUM-MAN-HR.

IF NORM-HR GREATER THAN ZERO ADD NORM-HR TO SUM-NORM.

MOVE WEEK TO CURWEEK.

MOVE FLT-JRS TO CUR-FLT-HRS.

IF DATA-6; EQUAL TO TWO OR CUR-65 EQUAL TO TWO

MOVE TUR-TO CUR-TD.
                                                                                                                                                              COAGTO
51111
                                                                                                                                                              C98970
51120
                                                                                                                                                              C98970
                                                                                                                                                              C98970
5[121
51132
                                                                                                                                                              C98970
51140
                                                                                                                                                              C98970
51150
                                                                                                                                                             C98970
51152
51153
                                                                                                                                                              C98970
                                                                                                                                                              C98970
                       MOVE IDENT TO CUR-ID.
51154
                                                                                                                                                              C98970
51160
                                                                                                                                                              C98970
                       PERFORM CHECK-ISCHRONAL THRU END-CI.
55000
              PROC-
                                                                                                                                                              C98970
55010
                                                                                                                                                              COASTO
                       PERFORM CHECK-ISCHRONAL THRU END-MOVE ISCH-RONAL TO CUR-ISC.
MOVE WUC TO CURWUC.
MOVE SERIAL-NO TO CUR-SER-NO.
MOVE IDEN' TO CUR-ID.
PERFORM WRITE-2 THRU END-WRITE-2.
55020
                                                                                                                                                              C98970
55030
                                                                                                                                                              C98970
55050
                                                                                                                                                             C98970
55060
                                                                                                                                                              C98970
55070
                       C98970
55072
                                                                                                                                                              C98970
55073
                                                                                                                                                             C98970
                                                                                                                                                             C98970
55075
                      COMPUTE SUM-NORM > 0.

IF NORM-1 REPORTED THAN ZERO MOVE NORM-HR TO SUM-NORM.

MOVE UNITS TO SUM-MA.

IF UNITS EQUAL TO ZERO GO TO SET-FLAG.

MOVE CURNIC TO WUC-OUT.

MOVE CURNIC TO ISC-OUT.

PERFORM WRITE-3 THRU END-WRITE-3.

READ IN-FILE-D-B INTO DATA-BANK-INPUT AT END GO TO COF-BRK.
55080
                                                                                                                                                             C98970
55081
                                                                                                                                                              C98970
55090
                                                                                                                                                              C98970
55092
                                                                                                                                                              C98970
55093
55094
                                                                                                                                                              COROTA
                                                                                                                                                              C98970
55095
                                                                                                                                                              C98970
                                                                                                                                                              C98970
55096
55097
                        GO TO BHE IK-1.
                                                                                                                                                              C98970
55100
55130
               SET-FLAG.
                                                                                                                                                              C98970
                       READ IN-FILE-D-8 INTO DATA-BANK-INPUT
                       AT END GO TO EOF-BRK.
PERFORM (HECK-ISCHRONAL THRU END-CI.
55140
55150
                                                                                                                                                              C98970
                                                                                                                                                              C98970
                      PERFORM (HECK-ISCHRONAL THRU END-CI.

IF IDENT EDUAL TO CUR-ID

PERFORM MRITE-2 THRU END-WRITE-2.

IF ISCHM.NAL NOT EQUAL TO CUR-ISC GO TO BREAK-I.

IF NUC NOT EDUAL TO CURWUC GO TO BREAK-I.

IF SERIAL-NO NOI EQUAL TO CUR-SER-NO GO TO BREAK-I.

IF IDENI NOT EDUAL TO CUR-ID GO TO BREAK-I.

MOVE TWO TO DATA-65.

IF NORM-HR LESS THAN ZERO MOVE ONE TO DATA-65.

IF CUR-65 EQUAL TO TWO OR DATA-65 EQUAL TO TWO

MOVE TWO TO CUR-65.

IF NORM-FR GREATER THAN ZERO ADD NORM-HR TO SUM-NORM.
                                                                                                                                                              C98970
                                                                                                                                                              C98970
55170
55180
                                                                                                                                                              C98970
55190
                                                                                                                                                              C98970
                                                                                                                                                             C98970
55200
                                                                                                                                                              C98970
55210
55212
                                                                                                                                                             C98970
55213
                                                                                                                                                              C98970
                                                                                                                                                             C98970
55215
55216
55220
                                                                                                                                                             C98970
                                                                                                                                                              C98970
                       ADD UNIIS TO SUM-MA.

IF UNIIS NOT EQUAL TO ZERO GO TO INT-BREAK.

GO TO SE'-FLAG.
55230
                                                                                                                                                             C98970
                                                                                                                                                             C98970
55231
55232
                                                                                                                                                              C98970
              INT-BREAK .
55240
55250
                                                                                                                                                              C98970
                      -BREAK.
MOVE CURBUC TO BUC-OUT.
MOVE CUR-ISC TO ISC-OUT.
PERFORM RITE-3 THRU END-WRITE-3.
COMPUTE CUM-NORM > 0.
COMPUTE SUM-MA > 0.
                                                                                                                                                             C98970
55260
                                                                                                                                                              C98970
55270
                                                                                                                                                             C98970
55280
                                                                                                                                                              C98970
55282
                                                                                                                                                              C98970
55284
                        GO TO SL .-FLAG.
                                                                                                                                                              C98970
55290
55322
             BREAK-1.
COMPUTE SUM-NORM > 0.
                                                                                                                                                              C98970
                                                                                                                                                              C98970
55324
55330
                       COMPUTE SUM-MA > 0.
GO TO CHECK-DATA.
                                                                                                                                                              C98970
                                                                                                                                                              C98970
55390
              WHITE-2.
                      IF NOMS-HR LESS THAN ZERO GO TO END-WRITE-2.

MOVE ISC.RONAL TO ISC-OUT.

MOVE WUC TO WUC-OUT.

MOVE SPACE TO HMC-OUT.
55395
                                                                                                                                                              C98970
55400
                                                                                                                                                             C98970
55410
                                                                                                                                                              C98970
                                                                                                                                                             C98970
```

```
MOVE NOKS-HR TO OHS.

MOVE FOUR TO DATA-TYPE.

WRITE OUT-REC-2 FROM OUT-DATA.

ADD 1 TU NO-REC-2.
  55430
55440
                                                                                                                                                                                                                      C98970
                                                                                                                                                                                                                      C98970
                                                                                                                                                                                                                      C98970
C98970
  55450
  55460
   55470
                     END-WRITE-2. EXIT.
                                                                                                                                                                                                                      C98970
                     WRITE-3.

IF CUR-65 EQUAL TO ONE GO TO END-WRITE-3.
  55480
                                                                                                                                                                                                                      C98970
  55482
                                                                                                                                                                                                                      C98970
                                MOVE SPACE TO MMC-OUT.
DIVIDE SUM-MA INTO SUM-NORM GIVING OBS.
MOVE THREE TO DATA-TYPE.
WRITE OUT-REC-2 FROM OUT-OATA.
ADD I TO NO-REC-2.
  55500
                                                                                                                                                                                                                      C98970
  55510
                                                                                                                                                                                                                      C98970
  55520
                                                                                                                                                                                                                      C98970
  55530
                                                                                                                                                                                                                      C98970
  55540
                                                                                                                                                                                                                      C98970
  55550
                     ENU-WRITE-J. EXIT.
                                                                                                                                                                                                                      C98970
  55551
                     EOF-BRK.
                                                                                                                                                                                                                      C98970
                                IF SUM-NORM EQUAL TO ZERO GO TO CLOSE-FILES.
MOVE CUR-UC TO WUC-OUT.
MOVE CUR' ISC TO ISC-OUT.
PERFORM 'RITE-3 THRU END-WRITE-3.
  55552
  55553
                                                                                                                                                                                                                      C98970
 55554
55555
                                                                                                                                                                                                                      C98970
                                                                                                                                                                                                                      C98970
  55556
                                 GO TO CLOSE-FILLS.
                                                                                                                                                                                                                     C98970
                     REMARK-2.
  55560
                                                                                                                                                                                                                      C98970
  55570
                                                          OMPLITE HATTO OF MH TOTAL OVER MA TOTAL
                                                                                                                                                                                                                     C98970
  55580
                                                      PATA BANK RECORD TYPE 4.
                                                                                                                                                                                                                      C98970
                     PROC-II-2H.
 60000
                                                                                                                                                                                                                      C98970
                                PERFORM CHECK-ISCHRONAL THRU END-CI.
  60010
                                                                                                                                                                                                                     C98970
                                MOVE 1SC HONAL TO CUR-ISC.
MOVE WUL TO CURWUC.
MOVE SERIAL-NO TO CUR-SER-NO.
MOVE 1DE-T TO CUR-ID.
 60020
 60030
                                                                                                                                                                                                                      C98970
  60050
                                                                                                                                                                                                                     C98970
 60060
                                                                                                                                                                                                                      C98970
  00070
                                 MOVE HMU TO CUR-HMC.
                                                                                                                                                                                                                      C98970
  60080
                     SET-NEW-2.
                                MOVE MAN-HR TO SUM-MAN-HR.

MOVE WAN-HR TO SUM-MA.

IF UNIT'S TO SUM-MA.

IF UNIT'S EQUAL TO ZERO GO TO SET-FLAG-2.

PERFORM WRITE-4 THRU END-WRITE-4.

REAU IN-. ILE-D-B INTO DATA-BANK-INPUT AT END 60 TO EOF-BRK-2.
  60090
                                                                                                                                                                                                                      C98970
  60100
 60102
                                                                                                                                                                                                                     C98970
  60103
                                                                                                                                                                                                                     C98970
 60104
                                                                                                                                                                                                                     C98970
  00105
                                 GO TO UH AK-2.
                                                                                                                                                                                                                     C98970
                     SET-FLAG-2.
 60110
                                REAU IN-FILE-D-B INTO DATA-BANK-INPUT
                               AT END TO EOF-BRK-2.

AT END GO TO EOF-BRK-2.

PERFORM CHECK-ISCHRONAL THRU END-CI.

IF ISCHRONAL NOT EOUAL TO CUR-ISC GO TO BREAK-2.

IF WUC NUT EQUAL TO CURWUC GO TO BREAK-2.

IF SERIAL-NO NOT EOUAL TO CUR-SER-NO GO TO BREAK-2.

IF ITENI NOT EQUAL TO CUR-SER-NO GO TO BREAK-2.

IF IMAL NOT EQUAL TO CUR-HMC GO TO BREAK-2.
                                                                                                                                                                                                                     C98970
 60150
                                                                                                                                                                                                                     C98970
 ot160
                                                                                                                                                                                                                     CGROTO
  00170
                                                                                                                                                                                                                     C98970
 60180
                                                                                                                                                                                                                     C98970
 60190
                                                                                                                                                                                                                     C98970
 60200
                                                                                                                                                                                                                     C98970
 60210
                                                                                                                                                                                                                     CORGIO
                   ADD MAN-IR TO SUM-MAN-HR,
ADD UNITS TO SUM-MA.

IF UNITS NOT EQUAL TO ZERO GO TO INT-BREAK-2.
GO TO SEI-FLAG-2.

INT-BREAK-2.
PERFORM WRITE-4 THRU END-WRITE-4.
COMPUTE SUM-MAN-HR > 0.
COMPUTE SUM-MAN > 0.
CO. STEELAG-2.
 60230
                                                                                                                                                                                                                     C98970
                                                                                                                                                                                                                     C98970
 60231
                                                                                                                                                                                                                     C98970
 60232
                                                                                                                                                                                                                     C98970
 60240
                                                                                                                                                                                                                     C98970
 60250
                                                                                                                                                                                                                     C98970
 60260
                                                                                                                                                                                                                     C98970
 60262
                                                                                                                                                                                                                     C98970
 60264
                                GO TO SET-FLAG-2.
                                                                                                                                                                                                                     C98970
 60270
                    BREAK-2.
 69282
                                COMPUTE SUM-MAN-HR > 0.
                                                                                                                                                                                                                     C98970
 60284
                                COMPUTE SUM-MA > 0.
GO TO CHECK-DATA.
                                                                                                                                                                                                                     C98970
 60290
                                                                                                                                                                                                                     C98970
 60330
                     WHITE-4
                                                                                                                                                                                                                     C98970
                                MOVE CURNUC TO WUC-OUT.
 60340
                                                                                                                                                                                                                     C90970
                               MOVE CURWUC TO WUC-OUT,
MOVE CUR-ISC TO ISC-OUT,
MOVE CUR-HMC TO HMC-OUT,
IF SUM-MA EQUAL TO ZERO ADD 1 TO SUM-MA.
DIVIDE SUM-MA INTO SUM-MAN-HR
GIVING OBS,
MOVE ONE TO DATA-TYPE,
WRITE OUF-REC-1 FROM OUT-DATA,
ADD I TO NO-HEC-1.
 60350
                                                                                                                                                                                                                     CGAGGA
 60360
                                                                                                                                                                                                                     C98970
 60370
                                                                                                                                                                                                                     C90970
60300
                                                                                                                                                                                                                     C98970
                                                                                                                                                                                                                     C98970
 60400
                                                                                                                                                                                                                    C98970
60410
60420
                                                                                                                                                                                                                    C98970
60430
                   ENU-WRITE-4. EXIT.
                                                                                                                                                                                                                     C98970
                   EOF-BRK-2.
                                                                                                                                                                                                                    C98970
                               PRINTER OF THE PRINTE
60450
                                                                                                                                                                                                                    C98970
60460
                                                                                                                                                                                                                     C98970
                                60 TO CLOSE-FILES.
60470
                                                                                                                                                                                                                    C98970
 70000
                   REAU-ISC-A-C.
                                                                                                                                                                                                                    C98970
                               READ IN- ILE-ISC INTO SPEC-WUC AT END GO TO END-RIAC. REAU IN- ILE-ISC INTO NO-ISC AT END GO TO END-RIAC. MOVE ZERO TO KNT.
 70005
                                                                                                                                                                                                                     C98970
 70010
                                                                                                                                                                                                                    C98970
 70020
70030
                                                                                                                                                                                                                    C98970
C98970
                               ADD I TO KNT.

READ IN-TILE-ISC INTO ISC-A-C AT END GO TO END-RIAC.

MOVE ISC-TN TO ISC-AC-TN [KNT].

MOVE ISC-WK TO ISC-AC-WK [KNT].

IF ISC-W. IS LESS THAN MIN-ISC-WEEK MOVE ISC-WK

TO MIN-ISC-WEEK.

IF NNT IS LESS THAN NO-ISC-AC GO TO RIAC.
 70040
                                                                                                                                                                                                                     C98970
 70050
                                                                                                                                                                                                                     C98970
 70060
                                                                                                                                                                                                                     C98970
 70070
                                                                                                                                                                                                                     C98970
 70075
                                                                                                                                                                                                                     C98970
 70076
                                                                                                                                                                                                                     C98970
 70080
                                                                                                                                                                                                                     C98970
                  CLOSE IN-FILE-ISC WITH LOCK.
END-RIAC. EX.T.
                                                                                                                                                                                                                     C98970
 70090
                                                                                                                                                                                                                     C98970
```

```
IF SERIAL-NO IS NOT EQUAL TO PREV-TESTED-SN GO TO CHECK-I-2.

IF ISC-FLAG IS EQUAL TO TWO GO TO END-CI.

IF ISCHENNAL IS EQUAL TO ONE AND WEEK IS NOT LESS THAN

MIN-ISC-WEEK, THEN GO TO END-CI.
70210
70420
                                                                                                                    C98970
                                                                                                                    C98970
70230
                                                                                                                    C98970
                                                                                                                    C98970
70240
                 MOVE TWO TO ISCHRONAL.

IF WEEK IS LESS THAN MIN-ISC-WEEK OO TO END-CI.

MOVE ZENO TO CNT.
70250
70260
                                                                                                                    CORSTO
                                                                                                                    C98970
70270
          CHECK-I-1.
ADD I TU CNT.
 70280
                                                                                                                     C98970
70290
                                                                                                                    C98970
                 MOVE ISC-AC-TH CCNT) TO ISC-TEMP,
IF SERIAL-NO IS LESS THAN ISC-TEMP GO TO CHECK-I-4.
IF SERIAL-NO IS EQUAL TO ISC-TEMP GO TO CHECK-I-1A.
IF CNI 15 LESS THAN NO-ISC-AC GO TO CHECK-I-1.
70500
                                                                                                                    C98970
                                                                                                                    C98970
70.510
70520
70530
                                                                                                                    C98970
           CHECK-I-4.
                                                                                                                    C98970
70340
70350
                 MOVE TWO TO ISC-FLAG.
GO TO CHICK-I-3.
                                                                                                                    C98970
70360
                                                                                                                    C98970
70370
                                                                                                                    C98970
                 MOVE ISC-AC-WK CONT TO WEEK-TEMP.

IF WELK-TEMP IS EQUAL TO WEEK OR WEEK IS GREATER THAN WEEK- TEMP MOVE ONE TO ISCHRONAL.
70380
                                                                                                                    C98970
                                                                                                                    C98970
70.590
                                                                                                                    C98970
70400
                 MOVE ONE TO ISC-FLAG.
                                                                                                                    C98970
70410
           CHECK-I-3.
70430
                                                                                                                    C98970
70440
           MOVE SENTAL-NO TO PHEV-TESTED-SN. ENU-CI. EXIT.
                                                                                                                    C98970
70450
          NINL-FILL-2.

WRITE OUT-REC-2 FROM NINE.

ADD I TO KNT.
70510
                                                                                                                     C98970
70520
                                                                                                                    C98970
                                                                                                                    C98970
70530
70540
                 IF KNT IS LESS THAN 90 GO TO NINE-FILL-2.
                                                                                                                    C98970
          N-F-2. EXIT.
70550
                                                                                                                    C98970
          N=F-2. EXII.
NINE-FILL-1.
WRITE OL'-REC-I FROM NINE.
AOD I TO KNT.
IF KNT IS LESS THAN 90 GO TO NINE-FILL-1.
N=F-1. EXII.
                                                                                                                    C98970
70600
70610
                                                                                                                    C98970
                                                                                                                    C98970
70620
70630
                                                                                                                    C98970
70640
                                                                                                                    C98970
          CLOSE-FILES.
71800
                 COMPUTE KNT > NO-REC-I - NO-REC-I / 90 + 90.

IF KNI IS ZERO GO TO CF-2.

PERFORM VINE-FILL-I THRU N-F-I.
71A10
                                                                                                                    C98970
                                                                                                                    C98970
71820
71830
71840
          CF-2.
                                                                                                                    C98970
                COMPUTE KNT > NO-REC-2 - NO-REC-2 / 90 + 90.
                                                                                                                    C98970
71850
                IF KNT IS ZERO GO TO CF-3.
PERFORM VINE-FILL-2 THRU N-F-2.
718 70
                                                                                                                    C98970
                                                                                                                    C98970
71900
                DISPLAY: NUMBER RECORDS-1: NO-REC-I UPON CONSOLE.
DISPLAY: NUMBER RECORDS-2: NO-REC-2 UPON CONSOLE.
OISPLAY: END OF JOB C9897: UPON CONSOLE.
CLOSE IN-FILE-0-B, MSG-FILE, OUT-FILE-1;
OUT-FILE-2 WITH LOCK.
71910
                                                                                                                    C98970
                                                                                                                    C98970
71920
                                                                                                                    C98970
71950
                                                                                                                    C98970
                                                                                                                   C98970
71960
71990
                GORACK.
/+ PLACE COBG_ SOURCE BEFORE THIS CARD
//CHG.TFGIN DD +,SPACE>[CYL+[1]]]
TFG DIO1 11 0202080
                                                                                                                 1440 CDS
0330003310033200333003400036000310003200032100204
   34
57000236
   57000237
   57000243 324
   57000244 331
   57002545
58000776
                  324
   50000901
                  331
   590000002
                  331
   59000003
                  331
331
   59000005
   59000006
   59000010
   59000012
                  331
   59000015
   59000018
                  331
   59000019
   50000025
                  331
   59000030
                  331
   59000054
   59000057
                  324
   5900005A
   59000059
   59000104
   59000105
                  331
   59000108
                  324
   5900ullo
                  324
   59000119
                  324
   59000141
   59000143 324
   59000144
   59000145 324
```

C98970

70200

CHECK-ISCHHU"IAL.

```
59000147 324
59000151 324
59000152 324
.FND
                PLACE TFG LATA BEFORE THIS CARD

14 DD 21SP): OLD | KEEP] + VOL > SER > + F3 + UNIT > T + F3

22 DD DISP > E OLD | KEEP] + VOL > SER > + F5 + UNIT > T + F5
//TPR. TU14
                                                                                                                                        †14
†22
†24
//TPR.TU22
//TPR.TU24
//TPR.TPRIN
                                     DISP>[OLD,KEEP],VOL>SER>+F7,UNIT>T+F7
+,SPACE>[TRK,[1,1]]
                            DO
                            no
T/P DT01
T/P DT02
T/P TU14
                        101008^2080
                        1010080Z080
101007-Z070
T/P
        TU22
                        101002 12020
T/P
        TU24
                        10100202020
                PLACE TYP CONTROL CARDS BEFORE THIS CARD
```

6.8.2 SORT FOR SCHEDULED NORM HOURS

6. 8. 3 CUMULATIVE DISTRIBUTION FOR SCHEDULED NORM HOURS

```
//C9897C EXEC P9655.,T1ME>30,ACCT>D35323007
 //CHG. TU12
                                                  DU DISPEC, PASS 1, UNITE (T+F1, 1, DEFER 1, DSN)+A, 9897430, VOL>SER>(+F1, A+F1, B+F1, C+F1, D+F1, E+F1, F+F1, G+F1, H+F1,
                                                                                                                                                                                                                                               CT12
                                                    1+F1.J+F1,K+F1.L+F1.M+F1.N+F1.0+F1.P+F1.Q+F1.R+F1.S+F1]
                                                  THE REPORT OF THE PERSON OF THE PROPERTY OF TH
 //LHG. TU25
 //CHG. INPUT
                                                                                                                                                                                                                                                   1440 CDS
                                                  DU
                                                  CONSTNE
                                                                                          COMPILE
                                                                                                                                                                                                                                                         C98970
 00000
                      DATE-WE REMARKS. TASK 2
                       DATE-WRITTEN. 7 APR 72.
                                                                                                                                                                                                                                                         C98970
01040
01050
                                                                          HIST OF WUC.
                                                                                                                                                                                                                                                          C98970
                      ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. 18M-360.
OBJECT-COMPUTER. 18M-360.
02000
                                                                                                                                                                                                                                                          C98970
02010
                                                                                                                                                                                                                                                          C98970
02020
                                                                                                                                                                                                                                                          C98970
02030
                                                                                                                                                                                                                                                          C98970
                         INPUT-OUTPUT SECTION.
02110
                       FILE-CONTROL.
                                                                                                                                                                                                                                                          C98970
                                     SELECT IN FILE
02120
                                                                                                                                         ASSION TO UT-S-TU12
                                                                                                                                                                                                                                                          C98970
                                     RESERVE 1 ALTERNATE AREA. SELECT HIST-FILE
02130
                                                                                                                                        ASSION TO UT-S-TU25
02140
                                                                                                                                                                                                                                                          C98970
                                    RESURJE 1 ALTERNATE AREA.
SELLCT IN-FILE-ISC
RESURVE 1 ALTERNATE AREA.
                                                                                                                                        ASSIGN TO DA-S-DT01
02200
                                                                                                                                                                                                                                                          C98970
                       DATA DIVISION.
FILE SECTION.
10000
                                                                                                                                                                                                                                                          098970
10010
                                                                                                                                                                                                                                                          C98970
11100
11120
                       FD IN-FILE
                                                                                                                                                                                                                                                           98970
                                    IN-FILE
RECURUING MODE IS F
BLOCK CUN; AINS 90 RECORDS
RECURU COITAINS 20
LABLL RECORDS ARE OMITTED
DATA RECORDS ARE IN-REC.
                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                          C98970
11140
                                                                                                                                      CHARACTERS
                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                          C98970
                                    1N-REC SYNC.
02 WUC
02 FILLEH
11170
                       01
                                                                                                                                                                                                                                                          C98970
                                                                                                                                   PICTURE XEST.
11180
                                                                                                                                                                                                                                                          C98970
                                                                                                                                  PICTURE X[4].
PICTURE S9[6].
PICTURE S99999V9.
11182
                                                                                                                                                                                                                                                          C98970
                                     02 065
11183
                                                                                                                                                                                                                                                          COROZO
11184
                                     02
                                                 OBS-1 REDEFINES OBS
                                                                                                                                                                                                                                                          C98970
11185
                                     02
                                                 FILLEP
                                                                                                                                   PICTURE X.
                                                                                                                                                                                                                                                          C98970
                                                 ISCHPONAL-NEW
                                                                                                                                   PICTURE X.
11186
                                     02
                                                                                                                                                                                                                                                          C98970
                                                FILLER
CATA-TYPE-NEW
11108
                                                                                                                                   PICTURE X.
                                                                                                                                                                                                                                                          C98970
```

```
C98970
                                                 PICTURE X.
11189
              02 FILLEP
              IN-FILE-ISC
RECORULING MODE IS F
BLOCK CUNTAINS 20 RECORDS
                                                                                               C98970
11300
                                                                                               C98970
 11320
11330
              BLOCK CONTAINS 20 RECORDS
RECORD CONTAINS 80
LAPLL RECORDS ARE STANDARD
DATA RECORDS ARE IN-REC-ISC.
1N-REC-ISC SYNC.
02 FILLER
                                                   CHARACTERS
                                                                                               C98970
11350
                                                                                               C98970
 11360
                                                                                               C98970
11400
         01
11410
                                                  PICTURE XEBOJ.
                                                                                               C98970
                                                                                               C98970
12100
              HIST-FILE
              HIST-FILE
RECORDING MODE 1S F
BLOCK CONTAINS 15 RECORDS
RECORD COLTAINS 150
LABEL RECORDS ARE OMITTED
DATA RECORDS ARE HIST-REC.
                                                                                               C98970
12120
                                                                                               C98970
                                                   CHARACTERS
12140
                                                                                               C98970
 12150
12160
              HIST-HEL SYNC.
                                                                                               C98970
12170
                   FILLER
 12180
                                                  PICTUME XE 1303.
          WORKING-STONACE SECTION.
                                                                                               C98970
 30000
             NAT SYNC PICTURE S9[5].

OBS-ISO SYNC PICTURE S9[5]V99999.

OBS-NI S'NC PICTURE S9[5]V99999.

FILLER SY'IC.

OZ FREW-HIST-VALUE OCCURS 2000 TIMES PICTURE S9[5]
                                                                                               C98970
 30010
                                                                                               C98970
30012
 30014
                                                                                               C98970
30020
                                                                                               C98970
30030
                                                                                               C98970
              COMPUTATIONAL.

A PICTURE 39153 COMPUTATIONAL.

NO-OF-HISTS SYNC PI
 30040
         01
30050
                                                                                               C04970
                                       SYNC
                                                  PICTURE 99999 VALUE ZERO.
                                                                                               C98970
              ONE
SOURD
                              SYNC
                                                  PICTURE X VALUE :1:.
                                                                                               C98970
                                                VALUE :2:.
VALUE :3:.
VALUE :4:.
VALUE :5:.
 30081
              TWO
                        SYLC
                                  PICTURE X
                                                                                               C98970
                        SY 'C
                                  PICTURE X
30082
         01
              THREE
                                                                                               C98970
              FOUR
         01
30083
                                                                                               C98970
                        SYNC
                                  PICTURE X
 30084
              FIVE
              CNT SYNC
30090
         01
                                                  PICTURE S9[5] COMPUTATIONAL.
                                                                                               C98970
              CUR-WUC-T FYNC.
30100
                                                                                               C98970
30110
              02 FILLER
02 CUH-WUC
                                                  PICTURE XE53 VALUE I WUC>I.
                                                                                               C98970
                                                  PICTURE XE51.
30120
                                                                                               C98970
             ISCHRUNAL SYNC
                                                  PICTURE X.
30170
         01
                           SYNC
         01
30180
                                                  PICTURE X.
                                                                                               C98970
              MINUS-UNE COMPUTATIONAL
 30190
                                                  PICTURE 5999 VALUE -1 SYNC.
                                                                                               C98970
32000
              REPORT-10 SYNC.
                                                                                               C98970
              02 FILLER
                                                  PICTURE XESO J VALUE
32010
                                                                                               C98970
                        LER FICTURE XC503 VALUE SPACE.
LER PICTURE XC503 VALUE
PICTURE XC503 VALUE
 32020
                                                                                               C98970
              02 FILLER
32030
                                                                                               COAGTO
32040
              02 FILLER
                                                                                               C98970
                      :
32050
                                                                                               C98970
              MEAH COMPUTATIONAL SYNC PICTURE S9E71V99. VARIANCE CUMPUTATIONAL SYNC PICTURE S9E71V99.
46000
                                                                                               C98970
46010
                                                                                               C98970
46020
              TEMP-COMP
                                                  PICTURE S9[7]V99.
                                                                                               C98970
             MEAN-VARIANCE-LINE SYNC.
46100
                                                                                               C98970
46110
              02 FILLER
                                                  PICTURE XESOS VALUE
                                                                                               C98970
46120
                        : 4
                                                                                               C98970
              02 FILLER
                                                  PICTURE XC193 VALUE
46130
                                                                                               C98970
                                         MEAN >:.
PICTURE ZZZ9.9.
46140
                                                                                               C98970
              02 MLAN-RPT
46150
                                                                                               C98970
46160
              02 FILLER
                                                  PICTURE XE301 VALUE
                                                                                              C98970
                                                  46170
                                                                                               C98970
              02 VARIANCE-RPT
46180
                                                                                               C98970
              02 FILLER
45190
                                                  PICTURE XC161 VALUE
                                                                                               C98970
         1:. 01 MEAN-U COMPUTATIONAL SYNC PICTURE S905 1999999 VALUE ZERO.
45200
                                                                                               C98970
46300
                                                                                               C98970
46510
         01 VARIANCE-8 COMPUTATIONAL SYNC PICTURE 59[5]1999999 VALUE ZERO.
                                                                                               C98970
46315
                                                                                               C98970
              TEMP-COMP-L
                                                                                               C98970
                                               SYNC PICTURE S9[5]V99999
                     VALUE ZERO.
                                                                                               C98970
46 125
        01 HIST-NO-0F-0BS-8
46330
                                               SYNC PICTURE S9[5]V99999
                                                                                               C98970
46335
                     VALUE ZERO.
                                                                                               C98970
             MEAN-VARIANCE-LINE-8
46400
                                            SYNC.
                                                                                               C98970
46410
              02 FILLER
                                      PICTURE XC501 VALUE
                                                                                               C90970
46420
                                                                                               C98970
                                  PICTURE XC161 VALUE
46430
              02 FILLER
                                                                                               C98970
                                       MEAN):.
PICTURE 229.99999.
PICTURE X[28] VAL
45440
                                                                                               C98970
46450
                  MEAN-RPT-B
             02
                                                                                              C98970
46460
                  FILLER
                                                   X[28] VALUE VARIANCE >:.
46470
                                                                                               C98970
                    VANIANCE-RPT-B
                                             PICTURE ZZZZ9.99999.
                                                                                               C98970
                                 PICTURE X[16]
             02 FILLER
                                                                                              C98970
C98970
46490
46500
                                                 PICTURE S9999V99 VALUE -9999.9.
PICTURE S9999V99 VALUE (9999.9.
PICTURE S9999V99 VALUE (9999.9.
47000
             HIST-VALUE-MAX SYNC
                                                                                               C98970
             HIST-VALUE-MIN SYNC
47010
                                                                                               C98970
             HIST-VALUE-MI SYNC
47015
                                                                                               C98970
47020
        01
                                                 PICTURE S9[5] VALUE ZERO.
                                                                                               C98970
                                                 PICTURE 999V99 VALUE 50.
PICTURE 9 VALUE ZERO.
47030
             HIST-NO-OF- . NTERVALS SYNC
                                                                                               C98970
47040
             HIST-INPUT-YMAX-VMIN SYNC
                                                                                               C98970
             HIST-UIST SYNC PHIST-THUEX SYNC COMPUTATIONAL
47050
                                                  PICTURE X
                                                                     VALUE :11.
                                                                                               C98970
47060
                                                                                               C98970
47070
                                                  PICTURE S999
                                                                     VALUE ZERO.
                                                                                               C98970
             HIST-INUEX-2 SYNC COMPUTATIONAL
47080
                                                                                               C98970
47040
                                                  PICTURE 5999
                                                                    VALUE ZERO.
                                                                                              C98970
```

```
01 HIST-TEMP SINC
01 HIST-INTERVAL-SIZE SYNC
                                                     PICTURE S9999999 VALUE ZERO.
PICTURE S999999 VALUE ZERO
47100
                                                                                                     C98970
47110
                                                                                                     C98970
              COMPUTATIONAL.

HIST-FLAG SINC PICTURE
HIST-SCALE- ALUE SYNC COMPUTATIONAL
47120
                                                                                                     C98970
                                                     PICTURE X
47150
          01
                                                                          VALUE 101.
                                                                                                     C98970
47160
          01
                                                                                                     C98970
                                                     PICTURE S999 VALUE (1.
PICTURE S999V99 COMPUTATIONAL.
47170
                                                                                                      C98970
47180
               HIST-PERCENT SYNC
         01
                                                                                                     C98970
               HIST-CUM SYNC
HIST-LINE S NC COMPUTATIONAL
47190
                                                     PICTURE S999V99 COMPUTATIONAL.
                                                                                                     C98970
47200
          n ı
                                                                                                     C08970
47210
                                                     PICTURE S999 VALUE ZERO.
                                                                                                     C98970
                                                     PICTURE S999 VALUE <75.
PICTURE S999.
PICTURE X[10] VALUE
47220
          01
               HIST-PAGE-FLAG SYNC
                                                                                                     C98970
               HIST-LINE-C.T SYNC
47230
         01
                                                                                                     C98970
47500
          01
                                                                                                     C98970
                                        IERROR NO OI.
47310
                                                                                                     C98970
         01
               HIST-LRH-5 SYNC.
                                                                                                     C98970
               02 FILLER
02 HIST-ERR-2
                                                     PICTURE X[5]
PICTURE S9[5]
                                                                         VALUE :BS > 1.
47330
                                                                                                      C98970
47540
                                                                                                     C98970
47350
47360
         01
               HIST-LRH-4 SYNC
                                                     PICTURE XE 103
                                                                                                      C98970
                                       ERROR MAX:
                                                                                                     COROTA
47570
               HIST-LRK-5 TYNC
                                                     PICTURE XC103 VALUE
                                                                                                     C98970
                                       :-MIN BAD. :
47380
                                                                                                     C98970
47590
               HIST-OUI-HANGE-VALUE SYNC
                                                      PICTURE S999 COMPUTATIONAL.
                                                                                                     C98970
               FILLER SYNC.
02 FILLER CCCURS 200 TIMES.
47500
          01
47510
                                                                                                     C98970
                    03 HIST-TABLE
03 HIST-TABLE-SCALED
03 HIST-TABLE-SCALED
                                                     PICTURE S9[5] COMPUTATIONAL.
PICTURE S999999 COMPUTATIONAL.
PICTURE S999999 COMPUTATIONAL.
47530
                                                                                                     C98970
47540
                                                                                                     C98970
47550
                                                                                                     C98970
               HIST-NEW-PAGE SYNC.

02 FILLEH

02 FILLER
47560
         01
                                                                                                     C98970
                                                     PICTURE X
47570
                                                     PICTURE X VALUE :1:.
PICTURE X[122] VALUE SPACE.
PICTURE X[5] VALUE IPAGE :.
                                                                                                     C98970
47580
                    FILLER
                                                                                                     C98970
475A2
                                                                                                     C08970
                    HIST-PAGE-NO
                                                     PICTURE 9.
47584
               02
                                                                                                     C98970
47590
                    FILLER
                                                     PICTURE X
                                                                       VALUE :#1.
                                                                                                     C98970
         0.1
               HIST-TITLE SYNC.
47500
                                                                                                     CORSTO
47610
               02
                                                     PICTURE XE33 VALUE IS 1.
                                                                                                     C98970
47620
               02
                    HIST-TITLE-1.
                                                                                                     C98970
                    03 FILLER
47621
                                                     PICTURE XC103 VALUE SPACE.
                                                                                                     C98970
                    HIST-TITLE-2.
47630
                                                                                                     C98970
                                                     PICTURE XC103 VALUE SPACE.
PICTURE XC103 VALUE SPACE.
PICTURE XC103 VALUE SPACE.
PICTURE XC243 VALUE
47631
                                                                                                     C98970
                    HISI-TITLE-3
47640
               02
                                                                                                     C98970
                    HIST-TITLE-4
                                                                                                     C98970
                    FILLER
47660
               02
                                                                                                     C98970
                                NO OF ORSERVAT
                                                    10NS >:.
47670
                                                                                                     C98970
                    HIST-NO-OF-OBS-RPT
                                                     PICTURE ZZZZ9.
PICTURE XC133 VALUE
47680
               02
                                                                                                     C98970
                    FILLER : "ALUE MAX > :
47090
               02
                                                                                                     C98970
47700
                                                                                                     C98970
                    HIST-VALUE-MAX-RPT
47710
                                                     PICTURE ----.9.
PICTURE X[13] VALUE
               02
                                                                                                     C98970
                    FILLER: VALUE MIN > :.
HIST-VALUE-MIN-RPT
               02
                                                                                                     C98970
                                                                                                     C98970
47730
                                                     PICTURE ----.9.
47740
               02
                                                                                                     C98970
                    FILLER
                                                     PICTURE XC103 VALUE
                                                                                                     C98970
47760
                                                                                                     C98970
              HIST-DOT-LINE SYNC.
                                                                                                     C98970
47400
         01
               02 FILLER
                                                     PICTURE XESO3 VALUE
47910
47920
                                                                                                     C98970
                                                     PICTURE XEBO 3 VALUE
                                                                                                     C90970
47422
               02 FILLER
47930
                                                                                                     C98970
               !-----!!.
47940
                                                                                                     C90970
               HIST-LAGEL SYNC.
                                                                                                     C98970
47950
         01
                                   PICTURE X(50) VALUE
MIDPHT PONT CUM FREQ 1...5...10...15...20.1.
PICTURE X(80) VALUE
               02 FILLER
                                                                                                     C90970
47470
                                                                                                     C90970
               UZ FILLER PICTURE XC80 J VALUE 1...
:25...3U...35...4U...45...5U...55...6U...65...7U...75...8U...
:85....9U...90...100#:
HIST-LINE-OU' SYNC.
02 FILLER PICTURE X VALUE :/:
02 HIST-LINE-RPT PICTURE ZZ9.
                    FILLER
                                                                                                     C98970
47974
47980
                                                                                                     C98978
47490
         01
                                                                                                     C98970
                                                                                                     C98970
48010
                                                     PICTURE ZZ9.
PICTURE X VALUE SPACE.
PICTURE ----9.
48020
                    HIST-LINE-RPT
                                                                                                     C98970
48030
                    FILLER
                                                                                                     C98970
                    HIST-MID POINT-RPT
HIST-PERCENT-RPT
                                                                                                     C98970
48040
               02
                                                     PICTURE ZZ9.9.
PICTURE X VALUE SPACE.
48060
                                                                                                     C98970
                    FILLER
                                                                                                     C98970
48070
               02
                    HIST-CUM REI
HIST-FREG-RPT
                                                     PICTURE 229.9. PICTURE 22229.
                                                                                                     C98970
48080
               02
                                                                                                     C98970
48100
               02
                                                     PICTURE X VALUE SPACE.
                                                                                                     C98970
48110
               02
                    HIST-POLIT OCCURS 100 TIMES
PICTURE X.
48120
                                                                                                     C98970
                                                                                                     C90970
48130
              02 FILLER
HIST-DUT-RANGE-REC SYNC.
02 FILLER
... NUMBER OF OF
                                                     PICTURE X VALUE :::.
                                                                                                     C98970
48140
                                                                                                     C98970
48150
         01
                                PICTURE XC353 VALUE

NUMBER OF OUT OF RANGE VALUES >1.

-RANGE-RPT PICTURE ZZ9.

PICTURE XC913 VALUE SPACE.
                                                                                                     C98970
48160
48170
                                                                                                     C98970
                    H1'11-OUT-RANGE-RPT
                                                                                                      C98970
               02
48180
48190
               02
                    FILLER
                                                                                                     C98970
                    FILLER
                                                     PICTURE X VALUE 1#1.
                                                                                                     C98970
48191
               02
               HIST-SCALE-LINE SYNC. 02 FILLER
         01
                                                                                                      C98970
48200
                                                                                                     C98978
48210
                                                     PICTURE XC273 VALUE
                                        SCALING FACTOR > 1.
44220
               02 HIST-SCALE-RPT
                                                     PICTURE ZZ9.
                                                                                                     COROTA
```

```
PICTURE XC0993 VALUE SPACE. PICTURE X VALUE 1#1.
                   02 FILLER
                                                                                                                                 COROZO
48/40
48250
                                                                                                                                 C98970
48300
48310
                   FILLER SYNC.
            01
                                                                                                                                 C98970
                         HIST-VALUE OCCURS 2000 TIMES
                                                                                                                                 C98970
48320
                                                                    PICTURE S9999V9 COMPUTATIONAL.
                                                                                                                                 C98970
                   NORS-AC-WK ! YHC.
            01
48.350
                                                                                                                                 C98970
                         NU-AC-WK-150
NU-AC-WK-N1
                                                            PICTURE $9(5].
PICTURE $9(5].
PICTURE $9(2].
48360
                   05
05
                                                                                                                                 C98970
48370
                                                                                                                                 C98970
                         CUTUFF-150
48380
                                                                                                                                 C98970
48390
48395
                                                            PICTURE SOCAL
                                                                                                                                 C98970
                         FILLER
                                                            PICTURE XC661.
                   05
                                                                                                                                 C98970
           OS FILLER PICTURE XC66].

PROCEDURE DIVISION.

OPEN INPUT 1x-FILE, IN-FILE-ISC.

OPEN OUTPUT + 1SI-FILE.

REAU 1x-FILE-ISC INTO NORS-AC-WK AT END GO TO CLOSE-FILES.

MOVE NO-AC-WK-150 TO OBS-ISO.

MOVE NO-AC-WK-150 TO OBS-NI.

MOVE 2000 TO KNI.
50000
50010
                                                                                                                                 C98970
50020
                                                                                                                                 C98970
50022
                                                                                                                                 C98970
50023
                                                                                                                                 C98970
50024
                                                                                                                                 C98970
50030
                                                                                                                                 C98970
                   PERFORM RESET-TABLE THRU END-RST-TABLE.
50040
                                                                                                                                 C98970
                   REAU IN-FILE, AT END GO TO CLOSE-FILES. WRITE HIST-HIC FROM REPORT-ID.
50050
                                                                                                                                 C98970
50060
                                                                                                                                 C98970
50100
                                                                                                                                 C98970
                   MOVE 1 TO HIST-NO-OF-OUS.
50110
                                                                                                                                 C98970
                   MOVE MUC TO CUR-WUC.
MOVE UATA-TYPE-NEW TO DATA-TYPE.
MOVE 1SCHROM: -NEW TO 1SCHROMAL.
50120
                                                                                                                                 C98970
                                                                                                                                 C98970
50140
50150
                                                                                                                                 C98970
                                                                                                                                 C98970
50160
                   IF DATA-TYPE IS EQUAL TO FIVE GO TO WEEKS-DATA ELSE GO TO
                                    FLT-DATA.
50170
                                                                                                                                 C98970
                                                                                                                                 C98970
50200
                   THEAD IN-FILE AT END GO TO CLOSE-FILES.

IF UATA-TYPE-NEW IS EQUAL TO 19: GO TO CLOSE-FILES.

IF WUC IS NOT EQUAL TO CUR-WUC GO TO PARA-2.

ADD 1 TO HIS -NO-OF-OBS.
50210
                                                                                                                                 C98970
50220
                                                                                                                                 C98970
50230
50250
                                                                                                                                 C98970
                                                                                                                                 CORO70
                   IF UATA-TYPE IS EQUAL TO FIVE GO TO WEEKS-DATA ELSE GO TO FLT-DATA.
50260
                                                                                                                                 C98970
50270
                                                                                                                                  C98970
50300
                                                                                                                                 C98970
50310
                   PERFORM SET-FISTOG THRU END-SH.
PERFORM RESET-TABLE THRU END-RST-TABLE.
                                                                                                                                 C98970
50320
50330
                                                                                                                                  C98970
                   GO TO PARA-1.
                                                                                                                                 C98970
            RESET-TABLE.
50400
                                                                                                                                  C98970
                   MOVE ZERO TO INT.
50410
                                                                                                                                 C98970
50420
                                                                                                                                 C98970
           ADD 1 TO CNT.

ADD 1 TO CNT.

MOVE MINUS-ON TO HIST-VALUE [CNT].

MOVE ZERO TO TREO-HIST-VALUE [CNT].

1F CNT 1S LESS HAN KNT GO TO HST.

MOVE ZERO TO KNT.

ENU-RST-TAHLE. E>11.
50430
                                                                                                                                  C98970
50440
                                                                                                                                  COROTO
50445
                                                                                                                                  C98970
50450
                                                                                                                                 C98970
50455
50460
                                                                                                                                 C98970
50510
            SET-HISTOG.
                  -HISTOG.

1F HIST-NO-OF-OUS IS NOT GREATER THAN CUTOFF-NI AND ISCHRONAL NOT EQUAL TO ONE GO TO END-SM.

1F HIST-NO-OF-OUS IS NOT GREATER THAN CUTOFF-ISO AND ISCHRONAL IS EQUAL TO ONE GO TO END-SM.

1F ISCHRONAL IS EQUAL TO ONE MOVE: ISO ITO HIST-TITLE-6.

1F DATA-TYPE EQUAL TO ONE MOVE: NORM-HR ITO HIST-TITLE-3.

1F DATA-TYPE EQUAL TO TWO MOVE: MAN-HR ITO HIST-TITLE-3.

1F DATA-TYPE IQUAL TO THREE MOVE: NORM/MA:

TO HIST-TITLE-3.
                                                                                                                                 C98970
50515
                                                                                                                                 COAGTO
50516
                                                                                                                                 C98970
                                                                                                                                 C98970
50517
50518
50520
                                                                                                                                 C98970
50530
                                                                                                                                 C98970
50540
                                                                                                                                 C98970
50541
                                                                                                                                 C98970
50542
                                                                                                                                 C98970
50044
                                                                                                                                 C98970
C98970
                   IF UATA-TYPE EQUAL TO FOUR MOVE : NORS
50545
           TO HIST-TITLE-3.

MOVE CUM-WHICT TO HIST-TITLE-1.

PEPFORM WHITF-HISTOGRAM THRU END-HIST.

IF HIST-FLAG IS FOUAL TO IL: THEN GO TO CFI.

AND I TO HO-("-HISTS.

ENU-SH. EXIT.
50546
                                                                                                                                  C98970
50560
                                                                                                                                 C98970
50540
                                                                                                                                 C98970
50600
50610
                                                                                                                                  C98970
50020
                                                                                                                                 C98970
51000
             WEEKS-DATA.
                                                                                                                                  C98970
51010
                   MOVE ZERO TO INT.
                                                                                                                                 COROTO
             WEEK-A.
                                                                                                                                  C98970
51020
                   ADD 1 TO CHT.
51030
                                                                                                                                  C98970
                   ADD 1 TO CHT.

IF OHS IS EQUAL TO HIST-VALUE (CHT) GO TO WEEK-C.

IF FREO-HIST- 'ALUE (CHT) IS EQUAL TO ZERO GO TO WEEK-B.

IF CHT IS LESS THAN 2000 GO TO WEEK-A.

DISPLAY: MORE THAN 2000 FREQUENCY OCCURENCES 1 UPON CONSOLE.
51040
                                                                                                                                 C98970
51050
                                                                                                                                  C98970
51060
                                                                                                                                 C98970
                                                                                                                                 C98970
51080
                   GO TO CF1.
                                                                                                                                 C98970
            WEEK-B.
51090
                                                                                                                                 C98970
                   MOVE OHS TO HIST-VALUE CONT.
IF ONT IS GHEATER THAN KNT THEN MOVE ONT TO KNT.
51100
                                                                                                                                 C98970
51110
                                                                                                                                 C98970
             WEEK-C.
                                                                                                                                 C98970
51120
51130
            ADD 1 TO FREG-HIST-VALUE CONT).
GO TO READ1.
FLT-DATA.
                                                                                                                                  C98970
                                                                                                                                 C98970
51140
52000
                                                                                                                                 C98970
                   MOVE ZERO TO THE
52010
                                                                                                                                 C98970
                                                                                                                                 C98970
52020
                   ADD I TO CHT.
52030
                                                                                                                                 C98970
```

```
52040
                IF UP5-1 IS EQUAL TO HIST-VALUE [CNT] 60 TO FLT-C.
                                                                                                            C98970
                IF FREG-HIST-VALUE CONTJ IS EQUAL TO ZERO GO TO FLT-B.
IF CHT IS LES THAN 2000 GO TO FLT-A.
DISPLAY: MORE THAN 2000 FREQUENCY OCCURENCES I UPON CONSOLE.
52050
                                                                                                            C98970
52060
                                                                                                            C98970
52070
                                                                                                            C98970
                GO IO CHI.
52UA0
                                                                                                            C98970
52000
          FLT-II.
                                                                                                            C98970
                MOVE UHS-1 IC HISI-VALUE [CNT].
IF CNI 15 GREATER THAN NNT THEN MOVE CNT TO KNT.
52100
                                                                                                            C98970
52110
52120
                                                                                                            C98970
52130
                ADD 1 TO FREO HIST-VALUE [CNT].
                                                                                                            C98970
                GO TO HEADI.
52140
                                                                                                            C98970
52200
          CLOSE-FILLS.
                                                                                                            C98970
52205
52207
               PERFORM SET-HISTOG THRU END-SH.
                                                                                                            C98970
          CF1.
                                                                                                            C98970
                CLOSE IN-FILE HIST-FILE, IN-FILE-ISC,
52210
                IF HIST-FEAG IS EQUAL TO :1: DISPLAY : HIST ERROR : UPON
52211
               CONSOLL.

DISPLAY: NO F HISTOGRAMS > 1 NO-OF-HISTS UPON CONSOLE.

DISPLAY: EOU C9897: UPON CONSOLE.
52212
                                                                                                            C98970
52215
52220
                                                                                                            C98970
52230
                GOBACK .
                                                                                                            C98970
         COMPLITE -M-V.
               TILE TO USE TO USE TO ONE MOVE OBS-150 TO HIST-NO-OF-OBS-B ELSE MOVE OBS-NI TO HIST-NO-OF-OBS-B.

MOVE ZERO TO UNT.

MOVE ZERO TO TEAN-B.
94400
                                                                                                            C98970
94010
                                                                                                            C98970
94020
94030
                                                                                                            C98970
94040
                                                                                                            C98970
         CMV-1-B.
94050
                                                                                                            C98970
                ADD 1 TO CHT.
94060
                                                                                                            C98970
               COMPUTE TEMP-JOMP-B > HIST-VALUE [CNT] *
FHE '-HIST-VALUE [CNT],
ADD TEMP-COMP-B TO MEAN-B,
IF (NT 15 LLS THAN KNI GO TO CMV-I-B,
DIVITE HIST-NL-OF-OBS-B INTO MEAN-B,
94070
94080
                                                                                                            C98970
94 090
                                                                                                            C98970
94100
                                                                                                            C98970
94110
                                                                                                            C98970
               MOVE ZEHO TO THE MOVE ZEHO TO VARIANCE-B.
94120
94130
                                                                                                            C96970
         CMV-2-R.
ADD 1 TO CNT.
COMPLITE TEMP-COMP-R > [[HIST-VALUE [CNT] - MEAN-B] ** 2] **

EUF-HIST-VALUE [CNT].
94140
                                                                                                            C98970
94150
                                                                                                            C98970
94160
                                                                                                            C98970
                FREQ-HIST-VALUE [CNT].
ADD TEMP-COMP & TO VARIANCE-B.
94170
94180
                                                                                                            C98970
               IF CNT LESS THAN KNT GO TO CMY-2-B.
COMPUTE VARIANCE-B > VARIANCE-B / [HIST-NO-OF-0BS-B - 1].
MOVE MEAN-B TJ MEAN-RPT-B.
MOVE VANIANCE B TO VARIANCE-RPT-B.
94190
                                                                                                            C98970
94200
                                                                                                            C98970
                                                                                                            C98970
44220
                                                                                                            C98970
94250
                WRITE HIST-RET FROM MEAN-VARIANCE-LINE-B.
                                                                                                            C98970
         END-CMP-R. EXIT.

COMPUTE-MEAN-VARIANCE.

IF HIST-NO-OF OUS EQUAL TO 1 GO TO CMV-3.

MOVE ZERO TO CNT.

MOVE ZERO TO MEAN.
44260
45000
                                                                                                            C98970
95005
45010
                                                                                                            C98970
95020
         CMY-1.
95030
                                                                                                            C98970
               AUD 1 TO CHT.
                                                                                                            C98970
               COMPUTE TEMP-COMP > HIST-VALUE [CNT] + FREG-HIST-VALUE [CNT],
ADD TEMP-COMP TO MEAN,
IF UNT IS LEST THAN KNT GO TO CMV-1.
95050
                                                                                                           C98970
95060
                                                                                                            C98970
95070
               DIVICE HIST-HO-OF-OBS INTO MEAN.
95080
                                                                                                            C98970
               MOVE ZERO TO CNI.
MOVE ZERO TO "ARIANCE.
95090
                                                                                                            C98970
95100
         CMV-2.
95110
                                                                                                            COAGTO
               ADD I TO CNT.

COMPUTE TEMP-LOMP > [[HIST-VALUE [CNT] - MEAN] + 2] + FREQ-HIST-VALUE [CNT].
                                                                                                            C98970
95130
95140
                                                                                                            C98970
               ADD TEMP-COMP TO VARIANCE.
95150
                                                                                                            C98970
               IF CHT IS LLS THAN KNT GO TO CMY-2.
95160
                                                                                                            C98970
               COMPUTE VARIANCE > VARIANCE / [HIST-NO-OF-OBS - 1].

MOVE MEAN TO MEAN-RPT.

MOVE VARIANCE TO VARIANCE-RPT.
                                                                                                            C98970
95180
                                                                                                            C98970
95190
                                                                                                            C98970
9519I
95192
                GO 10 CMV-4.
                                                                                                            CGAGTO
95193
               MOVE ZERO TO JAHIANCE-RPT.
                                                                                                            C98970
45194
               MOVE HIST-VAL'IE [1] TO MEAN-RPT.
                                                                                                            C98970
95195
         CMV-4.
                                                                                                            C98970
               WRITE HIST-REC FROM MLAN-VARIANCE-LINE.
45200
                                                                                                            C98970
         END-CMV.
45.40
                           EXI.
                                                                                                            C98970
                                                                                                            C98970
               IF DATA-TYPL NOI LQUAE TO FOUR GO TO NOT-NORS.

IF ISCHRONAL EQUAE TO ONE MOVE OBS-ISO TO HIST-NO-OF-OBS-RPT

ELSE MOVE OBS-NI TO HIST-NO-OF-OBS-RPT.

GO TO HUTH-HOPS.
953II
                                                                                                            C98970
95312
                                                                                                            C98970
95313
                                                                                                            C98970
95314
                                                                                                            C98970
         NOT-NORS.
MOVE HIST-NO-UF-OBS TO HIST-NO-OF-OBS-RPT.
95315
                                                                                                            C98970
45320
         NOTH-HOHS.
95325
                                                                                                            C98970
         MOVE -9499,9 10 HIST-VALUE-MAX.
95330
                                                                                                            C98970
97000
97080
                                                                                                            COROTA
97040
                                                                                                            C98970
47100
                                                                                                            C98970
97140
                                                                                                            C98970
```

```
MOVL C9999.9 'O HIST-VALUE-MIN.
MOVE ZERO TO MIST-INDEX.
HIST-FIND-VMAX-VMIN.
97150
                                                                                                                                                                                                                                  C98970
 97200
                               MOVE ZERO TO

|=FIND=VMAX=VMIN.
ADD I TO HIST-INDEX.
MOVE HIST-VAL'E [HIST-INDEX] TO HIST-TEMP.
IF HIST-TEMP IS GREATER THAN HIST-VALUE-MAX THEN MOVE
HIST-TEMP TO HIST-VALUE-MIN THEN MOVE
HIST-TEMP TO HIST-VALUE-MIN.
IF HIST-INDEX IS LESS THAN KNT THEN GO TO
HIST-TEMP.

**TEMP**
HIST-TEMP**

**TEMP**

**T
                                                                                                                                                                                                                                   C98970
 97210
                                                                                                                                                                                                                                   C98970
 97220
                                                                                                                                                                                                                                   C98970
 97230
 97240
                                                                                                                                                                                                                                   CGAGTO
97250
97260
                                                                                                                                                                                                                                   C98970
                                                                                                                                                                                                                                   C98970
 97270
                                                                                                                                                                                                                                  C98970
97280
97481
                                                                                                                                                                                                                                   C98970
                                                                                                                                                                                                                                  CGAGTO
 97282
                                  MOVE ZERO TO HIST-TEMP.
MOVE HIST-VALUE-MIN TO HIST-VALUE-MI.
                                                                                                                                                                                                                                  C98970
 97283
                                                                                                                                                                                                                                   C98970
 97284
                     SET-LOW.
                                                                                                                                                                                                                                  C98970
                                 IF HIST-VALUE MI LESS THAN 100 GO TO GOT-LOW. SUBTRACT 100 FROM HIST-VALUE-MI. ADD 100 TO HIST-TEMP.
97485
97486
                                                                                                                                                                                                                                   C98970
                                                                                                                                                                                                                                  C98970
 97287
                                                                                                                                                                                                                                   C98970
                                  GO TO SLT-LOW.
 97288
                                                                                                                                                                                                                                   C98970
 97289
                     GOT-LOW.
                                 LOW.
MOVE HIST-TEMP TO HIST-VALUE-MI.
COMPUTE HIST-NO-OF-INTERVALS >
                                                                                                                                                                                                                                  C98970
97290
97292
                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                  C98970
 97294
                                           [HIST-VALUE-MAX - HIST-VALUE-MI] / 4 < 4.
                                                                                                                                                                                                                                  C98970
97300
97301
                    HIST-PRINT-TITLE.

IF HIST-NU-OF-INTERVALS IS LESS THAN SO MOVE SO TO
                                                                                                                                                                                                                                  C98970
                                IF HIST-NU-OF-INTERVALS IS LESS THAN 50 MOVE 50 TO

HIST-NO-UF-INTERVALS.

ADD I TU HIST-PAGE-NO.

MOVE 5 TO HIST-LINE-CNT.

MRITE HIST-REC FROM HIST-NEW-PAGE.

PERFORM DET-NU-UBS THRU END-DET-NO-OBS.

MOVE HIST-VAL IE-MAX TO HIST-VALUE-MIN-RPT.

MOVE HIST-VAL IE-MAX TO HIST-VALUE-MIN-RPT.

WRITE HIST-REC FROM HIST-TITLE.

THOU END-CMV ELSE PERFORM COMPUTE-MEAN-VARIANCE

THRU END-CMV ELSE PERFORM COMPUTE-M-V THRU END-CMV-B.

IF UATA-TYPE EQUAL TO FOUR GO TO END-HIST.

HRITE HIST-REC FROM HIST-DOT-LINE.

WRITE HIST-REC FROM HIST-DOT-LINE.

WRITE HIST-REC FROM HIST-DOT-LINE.

WRITE HIST-REC FROM HIST-DOT-LINE.
                                                                                                                                                                                                                                  C98970
 97302
                                                                                                                                                                                                                                   C98970
 97304
                                                                                                                                                                                                                                  C98970
 97306
                                                                                                                                                                                                                                   C98970
97310
97311
                                                                                                                                                                                                                                   C98970
                                                                                                                                                                                                                                  C98970
97330
97340
                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                  C98970
97350
97351
                                                                                                                                                                                                                                   C98970
                                                                                                                                                                                                                                  C98970
 97352
                                                                                                                                                                                                                                  C98970
 97356
                                                                                                                                                                                                                                  C98970
 97358
                                                                                                                                                                                                                                   C98970
97360
97370
                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                   C98970
 97380
97390
                                                                                                                                                                                                                                   C98970
                      HIST-DUMMY .
                                                                                                                                                                                                                                   C98970
                                 IF HIST-VALUE MAX IS LESS THAN HIST-VALUE-MIN THEN 60 TO HIST-ERHOR-2.

IF HIST-NO-OF-INTERVALS IS GPEATER THAN 200 THEN MOVE 200 TO HIST-NO-OF-INTERVALS.

MOVL ZERO TO HIST-INDEX.
 97410
                                                                                                                                                                                                                                   C98970
 47420
                                                                                                                                                                                                                                   C98970
 97430
                                                                                                                                                                                                                                   C98970
 97440
                                                                                                                                                                                                                                  C98970
  3744I
                                                                                                                                                                                                                                   C98970
97442
                     HIST-RST.
ADD I TO HIST-INDEX.
                                                                                                                                                                                                                                   C98970
 97443
                                 ADD I TO HIST-INDEX.

MOVE ZERO TO LIST-TABLE CHIST-INDEXI.

IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS

THEN GO TO HIST-RST.

MOVE 4.0 TO HIST-STREAL-SIZE.

NOTE COMPUTE CPER LIMIT FOR EACH INTERVAL.

MOVE HIST-VALUE-MI TO HIST-TEMP.
                                                                                                                                                                                                                                  C98970
97444
                                                                                                                                                                                                                                   C98970
                                                                                                                                                                                                                                   C98970
 97446
                                                                                                                                                                                                                                   C98970
 97450
                                                                                                                                                                                                                                  C98970
 97500
                                                                                                                                                                                                                                  C98970
 97510
                                                                                                                                                                                                                                   C98970
 97520
                               MOVE HIST-VALUE-MI TO HIST-TEMP.

IT-INC-INTERVAL.

ADD 1 TO HIST-INDEX.

ADD PIST-INTERVAL-SIZE TO HIST-TEMP.

MOVE HIST-TEMP TO HIST-UPPER-LIMIT LHIST-INDEX.

IF HIST-INDEX IS LESS THAN HIST-NO-DF-INTERVALS THEN

GO TO HIST-INC-INTERVAL.

NOTE PLACE OCCUMANCE INTO APPROPRIATE CHANNEL.

MOVE ZENO TO HIST-INDEX-2.
                                                                                                                                                                                                                                   C98970
 97530
                                                                                                                                                                                                                                   C98970
97540
97550
                                                                                                                                                                                                                                   C98970
                                                                                                                                                                                                                                  C98970
 97560
                                                                                                                                                                                                                                   C98970
 97570
                                                                                                                                                                                                                                   C98970
                                                                                                                                                                                                                                  C98970
 97580
 97600
                                                                                                                                                                                                                                   C98970
                     MOVE ZEHO TO HIST-INDEX-2. HIST-OCCUMANCE.
97610
                                                                                                                                                                                                                                  C98970
 97620
                                                                                                                                                                                                                                   C98970
                                 ADD I TO HIST INDEX-2.

MOVE HIST-VALUE (HIST-INDEX-2) TO HIST-TEMP.

MOVE ZERO TO HIST-INDEX.
 97630
                                                                                                                                                                                                                                   CORSTO
 97640
                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                   C98970
 97650
                                97660
                     HIST-INTERVAL.
                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                  C98970
 97675
                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                  C98970
97680
97690
97700
                                                                                                                                                                                                                                  C98970
 97710
                                                                                                                                                                                                                                  C98970
97/20
                                                                                                                                                                                                                                   C98970
                                                                                                                                                                                                                                  C98970
                     HIST-ADU-TAULL.
                                                                                                                                                                                                                                   C98970
                     ADD A TO HIST TABLE [HIST-INDEXI.]
HIST-NO-AUD.
IF HIST-INDEX=2 IS LESS KNT
NOTE COMPUTE SCALE VALUE.
MOVE HIST-TABLE [I] TO HIST-TEMP.
97750
97751
                                                                                                                                                                                                                                  C98970
97760
                                                                                                                                                        GO TO HIST-OCCURANCE.
                                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                                  C98970
97810
                                                                                                                                                                                                                                   $98970
97820
                                 MOVE 1 TO HIST-INDEX.
                                                                                                                                                                                                                                  C98970
97830
                                                                                                                                                                                                                                  C98970
                     HIST-SCALE.
                                I-SCALE.

ADD I TO HIST-INDEX.

IF HIST-TAPLE [HIST-INDEX] IS GREATER THAN HIST-TEMP THEN

MOVE HIST-TARLE [HIST-INDEX] TO HIST-TEMP.

IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS THEN 60 TO
97840
                                                                                                                                                                                                                                 C98970
97850
 97860
                                                                                                                                                                                                                                   C98970
47870
```

```
HIST-SCALE.
9788U
                                                                                                                                               C98970
                     COMPUTE HIST-TCALE-VALUE > [HIST-TEMP < 99] / 100.
IF HIST-SCALE-VALUE LESS THAN 1 MOVE 1 TO HIST-SCALE-VALUE.
MOVE ZERO TO HIST-INDEX.
97690
                                                                                                                                               C98970
97495
                                                                                                                                               C98970
97400
                                                                                                                                               C98970
97910
             HIST-SCALED-VALUE .. ADD 1 TO HIST-INDEX.
                                                                                                                                               C98970
                                                                                                                                               C98970
                     COMPUTE HIST-TABLE-SCALED (HIST-INDEX) >
97930
                                                                                                                                               C98970
                     HIST-TABLE (HIST-INDEX) / HIST-SCALE-VALUE.

IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS THEN GO TO
97440
                                                                                                                                               C98970
97950
                                                                                                                                               C98970
97900
                                                                     HIST-SCALED-VALUES.
                                                                                                                                               C98970
             HIST-SCAN

NOTE PREPARE OUIPUT DATA.

DIVIDE 2 INTO HIST-INTERVAL-SIZE.

MOVE ZERO TO HIST-LINE.

HIST-PREPARE.
98000
                                                                                                                                               C98970
98010
                                                                                                                                               C98970
 98020
                                                                                                                                               C98970
C98970
981130
                    MOVE AND 1 TO HIST-LINE.

ADD 1 TO HIST-LINE TO HIST-LINE-RPT.

COMPUTE HIST-TEMP > HIST-UPPFR-LIMIT (HIST-LINE)

MOVE HIST-TEM, TO HIST-MID-POINT-RPT.

COMPUTE HIST-PERCENT > HIST-ND-OF-OBS.
98040
98050
                                                                                                                                                C98970
                                                                                                                                               C98970
C98970
98060
9AU70
98080
                                                                                                                                               C98970
 98090
                                                                                                                                                C98970
                                                                                                                                               C98970
98100
 98110
                    / HIST-NO-OF-OBS.

MOVL HIST-PERCENT TO HIST-PERCENT-RPT.

ADD HIST-PERC, NI TO HIST-CUM.

MOVL HIST-CUM TO HIST-CUM-RPT.

MOVE HIST-TABLE (HIST-LINE) TO HIST-FREG-RPT.

MOVE ZERO TO HIST-INDEX.

IF HIST-DIST 'S NOT EQUAL TO :0: GO TO HIST-CUM-1.

COMPUTE HIST-THOEX-2 > HIST-TABLE-SCALED (HIST-LINE) < 0.5.
98120
                                                                                                                                                C98970
98130
                                                                                                                                                C98970
98140
98150
                                                                                                                                               C98970
 98160
                                                                                                                                               C98970
98170
                                                                                                                                               C98970
98180
                                                                                                                                               C98970
             IF HIST-INDEX-2 IS EQUAL TO ZERO GO TO HIST-PREP-SPACE.

HIST-PREP-DIST.

ADD 1 TO HIST-INDEX.

MOVE :=: TO HIST-POINT [HIST-INDEX].

IF HIST-INDEX IS LESS THAN HIST-INDEX=2 GO TO HIST-PREP-DIST.

IF HIST-INDEX IS EQUAL TO 100 THEN GO TO HIST-WRITE.
98190
94200
                                                                                                                                               C98970
                                                                                                                                               C98970
 94210
98220
                                                                                                                                               C98970
98230
                                                                                                                                               C98970
48240
                                                                                                                                               C98970
44250
                                                                                                                                               CGAGTO
                     AOD 1 TO HIST-INDEX.
                                                                                                                                                C98970
 98260
                     MOVE SPACE TO HIST-POINT (HIST-INDEX).
IF HIST-TUDEX IS LESS THAN IND THEN GO TO HIST-PREP-SPACE.
98270
                                                                                                                                               C98970
 99280
                                                                                                                                               C98970
98290
                      GO TO HIST-WRITE.
             HIST-CUM-1.
 98500
                                                                                                                                               COAGTO
                                                                                                                                               C98970
 98310
                     ADD I TO HIST INDEX.

MOVE SPACE TO MIST-POINT (HIST-INDEX).

IF HIST-INDEX IS LESS THAN 100 THEN GO TO HIST-CUM-1.

COMPUTE HIST-NUEX > HIST-CUM < 0.5.

IF HIST-INDEX IS EQUAL TO ZERO GO TO HIST-WRITE.

MOVL :+: TO HIST-POINT (HIST-INDEX).
98520
                                                                                                                                               C98970
 98330
                                                                                                                                               C98970
98336
                                                                                                                                                C98970
                                                                                                                                               C98970
              HIST-WRITE.
98400
                                                                                                                                               C98970
                     WHITE HIST-KET FROM HIST-LINE-OUT.

ADD 1 TO HIST-LINE-CNT.

IF HIST-PAGE-LAG IS EQUAL TO ZERO GO TO HIST-NO-PAGING.

IF HIST-LINE-UNI IS EQUAL TO HIST-PAGE-FLAG

THEN PERFORM HIST-PRINT-TITLE.
                                                                                                                                               C98970
 94410
98412
                                                                                                                                               C98970
98414
                                                                                                                                               C98970
98415
                                                                                                                                               C98970
98416
                                                                                                                                               C98970
98417
                                                                                                                                               C98970
                     IF HIST-LINE IS LESS THAN HIST-NO-OF-INTERVALS THEN 60 TO
                                                                                                                                               C98970
98420
48430
                                                                          HIST-PREPARE.
                                                                                                                                               C98970
                     WRITE MIST-REC FROM HIST-DOT-LINE.

MOVE HIST-SCALE-VALUE TO HIST-SCALE-RPT.

WRITE HIST-REC FROM HIST-SCALE-LINE.

IF HIST-OUT-RYGE-VALUE IS EQUAL TO ZERO GO TO HIST-WRITE-B.

MOVE HIST-OUT-RANGE-VALUE TO HIST-OUT-RANGE-RPT.

WRITE HIST-NEC FROM HIST-OUT-RANGE-REC.
98440
                                                                                                                                               C98970
98450
                                                                                                                                               C98970
                                                                                                                                               C98970
98400
98470
                                                                                                                                               C98970
48480
                                                                                                                                               C98970
                                                                                                                                               C98970
98440
98500
             HIST-WRITE-U.
                                                                                                                                               C98970
                     WRITE HIST-HE FROM HIST-DOT-LINE.
                                                                                                                                               C98970
C98970
98510
98520
99000
             HIST-LRHOK-1.
                     WRITE HIST-REC FROM HIST-TITLE.
                                                                                                                                               C98970
99010
                     MOVE HIST-ERR-1 TO HIST-TITLE-I.
HOVE HIST-NO-CE-OBS TO HIST-FRR-2.
WRITE HIST-REC FROM HIST-TITLE.
                                                                                                                                               C98970
99020
                                                                                                                                                C98970
99030
                                                                                                                                               C98970
C98970
99040
                     MOVE :1: TO HIST-FLAG.
GO TO END-HIS: .
99050
                                                                                                                                                C98970
99060
             MIST-ERROR-2.

MOVE HIST-ERR-4 TO HIST-TITLE-1.

MOVE HIST-ERR-5 TO HIST-TITLE-2.

WRITE HIST-RE FROM HIST-TITLE.

MOVE :1: TO HIST-FLAG.
                                                                                                                                                C98970
99100
                                                                                                                                                C98970
49110
99120
                                                                                                                                                C98970
                                                                                                                                                C98970
99130
                                                                                                                                                C98970
99140
             GO TO END-HIST.
HIST-ERK-3.
MOVE ::: TO H'ST-FLAG.
99150
                                                                                                                                                C98970
99200
                                                                                                                                                C98970
99210
99990 EMU-HIST. EXIT.

/* PLACE COBOL SOURCE BEFORE

//CHG.TFGIN OU */SP/CES(CYL,(I,1))

TFG DIUI 11 0202080
                                                                                                                                                C98970
                                                                                                                                           1440 CDS
01028210220515
```

6.8.4 SORT FOR UNSCHEDULED MANHOURS

```
//T9897N JOB
//C9897F EXEC
//CHG.SORTIN
DU D15PPL(KEEP],UNIT)(A+F5,2,DEFER],
CT22/23 1
CT22/23 1
DU D15PPL(KEEP],UNIT)(A+F5,2,DEFER),
CT22/23 1
CT2/23 1
CT22/23 1
CT2
```

6. 8. 5 CUMULATIVE DISTRIBUTION FOR UNSCHEDULED MANHOURS

```
2
                                                                                                         CT12
                                                                                                         CT25
                      VOL.5ER)(+76,4+76,6+76,C+76,D+76,E+76,F+76,6+76,H+76,
I+F6,J+76,:+76,L+76,M+76,N+76,O+76,P+76,9+76,H+76,
 //CHG.1NPUT DU +,SP/SES(CYL,[1,1])
00000 COMBINE COMPILE
01040 DATE-WRITTEH 7 APR 72.
                                                                                                          1440 CDS
                                                                           G. WANG.
                                                                                                             C98970
        REMARKS.

IASK 2C HIST OF WUCCHMC.

ENVIRONMENT DIVISION.

CON-16URATION SEC.ION.

SOURCE-COMPUTER. : BM-360.

OBJECT-COMPUTER. JBM-360.
 01050
                                                                                                             C98970
 01060
                                                                                                             C98970
C98970
 02000
 02010
                                                                                                             C98970
 02020
                                                                                                             C98970
02030
                                                                                                             C98970
           INPUI-OUTPUT SECTION.
 02100
                                                                                                             COROZO
          FILE-CONTROL.
SELLCI IN-FILE
 02110
                                                                                                             C98970
 U2120
                                                            ASSIGN TO UT-S-TU12
                                                                                                             C98970
02130
02140
02150
02200
                RESERVE 1 ALTERNATE AREA. SELLCT HIST-FILE
                                                            ASSIGN TO UT-S-TU25
                                                                                                             C98970
                RESERVE 1 LITERNATE AREA. SELECT IN-FILE-ISC
                                                                                                             C98970
                                                            ASSIGN TO DA-S-DT01
                      RESERVE 1 ALTERNATE AREA.
U2210
                                                                                                             COBOTO
          DATA DIVISION.
10000
                                                                                                             C98970
 10010
          FILE SECTION.
FD IN-FILL
                                                                                                             C98970
 11100
                                                                                                             C98970
                RECOPUTING MODE 15 F
BLOCK CONTAINS 90 RECORDS
RECORD CONTAINS 20
 11120
11130
11140
                                                                                                             C98970
                                                           CHARACTERS
                                                                                                             C98970
 11150
                 LABLL RECORDS ARE OMITTED
                                                                                                             C98970
 11160
                DATA RECORDS ARE IN-REC.
                                                                                                             C98970
 11170
          01
                IN-HEC SYNC.
                                                                                                             C98970
                                                         PICTURE XC31.
PICTURE XC31.
PICTURE XC31.
PICTURE S9(6).
PICTURE S9999999.
PICTURE X.
                U2 WUC
11180
                                                                                                             C98970
 11181
11182
                    FILLER
                                                                                                             C98970
                    085
                02
                                                                                                             C98970
11184
                      OUS-1 REDEFINES OBS
                                                                                                             C98970
11185
                02
                    FILLER
                                                                                                             C98970
                      ISCHRONAL - ILW
11186
                                                         PICTURE X.
                                                                                                             C98970
11187
11188
                UZ FILLER
02 DATA-TYPF-NEW
                                                          PICTURE X.
                                                                                                             C98970
                                                         PICTURE X.
11167
                02 FILLER
1N-FILE-ISC
                                                         PICTURE X.
                                                                                                             C98970
                                                                                                             C98970
               RECORDING MODE IS F
BLOCK CUNTAINS 20 RECORDS
RECORD CONTAINS 80
LAPEL RECORDS ARE STANDARD
DATA RECORDS ARE IN-REC-ISC.
IN-REC-ISC SYNJ.
11320
                                                                                                             COROTA
11330
11340
11350
                                                                                                             C98970
                                                          CHARACTERS
                                                                                                             C98970
C98970
11360
                                                                                                             C98970
         01
                                                                                                             C98970
```

```
U2 FILLER
                                                                                      PICTURE XEBOJ.
                                                                                                                                                                     C98970
12100
12120
               FO HIST-FILE RECURUING MODE IS F
                                                                                                                                                                     C98970
12130
                        BLOCK CUNTAINS 15 RECORDS
RECORD CONTAINS 130
                                                                                                                                                                     C98970
                                                                                        CHARACTERS
12140
                                                                                                                                                                     C98970
                       LABEL RECORDS ARE OMITTED
DATA RECORDS A & HIST-REC.
HIST-REC SYNC.
U2 FILLER
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
12160
 12170
12180
                                                                                      PICTURE XC1303.
               WORKING-STORAGE SECTION.
 30000
                                                                                                                                                                     C98970
30010
               77 KNT SYNC PICTURE S9053.
                                                                                                                                                                     C98970
                       FILLER SYNC.

22 FRLU-HIST-VALUE OCCURS 1000 TIMES PICTURE 59(5)

COMPUTATIONAL.

A PICTURE SYLS, COMPUTATIONAL.

SYNC PICTURE 9999 VALUE ZERO.
 30020
30030
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
30050
                                                                    SYNC
                                                                                      PICTURE 9999 VALUE ZERO.
 30060
                                                                                                                                                                     C98970
 30050
                        ONE
                                                    SYNC
                                                                                      PICTURE X VALUE :1:.
PICTURE X VALUE :2:.
               01
                        TWO
                                                    SINC
30082
               01
                                                                                                                                                                     C98970
 30090
                        CNT SYILL
                                                                                       PICTURE S9(5) COMPUTATIONAL.
                                                                                                                                                                     C98970
                        CUR-WUC-T SYNC .
30100
               01
                        02 FILLER
02 CUR-WUC
                                                                                       PICTURE XEST VALUE : WUC>I.
50110
                                                                                                                                                                     C98970
30120
                                                                                      PICTURE XC53.
                        CUR-HMC-T SYNC.
30130
               01
                                                                                                                                                                     C98970
                        02 FILLER
02 CUT-HMC
02 FILLER
 30140
                                                                                       PICTURE XC51 VALUE : HMC>I.
                                                                                                                                                                     C98970
                                                                                      PICTURE XC3J.
PICTURE XX VALUE SPACE.
30150
30160
                                                                                                                                                                     C98970
                        ISCHPONAL SYNC
DATA-TYPE SYNC
MINUS-ONE COMPUTATIONAL
                                                                                       PICTURE X.
 30170
                                                                                                                                                                     C98970
                                                                                      PICTURE X.
PICTURE S999 VALUE -1 SYNC.
10140
               0.1
                                                                                                                                                                     C98970
 30190
                                                                                                                                                                     C98970
 32000
                        HEPUPI-10 SYNC.
               01
                                                                                                                                                                     C98970
32010
                        02 FILLER
                                                                                      PICTURE XC503 VALUE
                                                                                                                                                                     C98970
                                         LER
159897860 TF7919-01 142-A 1 1/2
FH PICTURE XC501 VALUE SPACE.
32020
                                                                                                                                                            1. 098970
                        02 FILLER
32030
                                                                                                                                                                     C98970
                                                                                       PICTURE XC301 VALUE
                        UZ FILLER
32040
                                                                                                                                                                     C98970
52050
                                                                                                                                                                     C98970
                        MEAN COMPUTATIONAL SYNC PICTURE SYC7 Jygg.
VAPIANCE COMPUTATIONAL SYNC PICTURE SYC7 Jygg.
1EMP-CUMP PICTURE SYC7 Jygg.
45000
               0.1
                                                                                                                                                                     C98970
               0.1
460I0
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
                        ME AN- VAN TANCE -- INE SYNC.
46100
               0.1
                                                                                                                                                                     C98970
46110
                        02 FILLER
                                                                                      PICTURE XC503 VALUE
                                                                                                                                                                     C98970
46120
                                          15
                        02 FILLER
                                                                                      PICTURE X[19] VALUE
46130
                                                                                                                                                                    098970
46140
                                                                                                                                                                     C98970
                        02 MEAN-HPT
46150
                                                                                      PICTURE ZZZ9.9.
                                                                                                                                                                     C98970
                                                                                      PICTURE XC301 VALUE VARIANCE >:-
                        02 FILLER
46160
                                                                                                                                                                     C98970
                        02 VAHIANCE-ROT
                                                                                                                                                                     C98970
                                                                                      PICTURE ZZZZZZ9.9.
PICTURE XC161 VALUE
45180
                                                                                                                                                                     C98970
                        02 FILLER
46190
                                                                                                                                                                     C98970
                                                                                 PICTURE X(16) VALUE

#:.

PICTURE S9999V99 VALUE -9999.9.

PICTURE S9999V99 VALUE (9999.9.

PICTURE S999V99 VALUE ZERO.

PICTURE 999V99 VALUE ZERO.

PICTURE 99 VALUE ZERO.
46200
                                                                                                                                                                     C98970
                        HIST-VALUE-MAX SYNC
47000
                                                                                                                                                                     C98970
                       HIST-VALUE-MIN SYNC
HIST-VALUE-MIN SYNC
HIST-VALUE-MIN SYNC
HIST-VALUE-MIN SYNC
HIST-VALUE-MIN SYNC
47010
47015
               0.3
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
47020
47030
                                                                                                                                                                     C98970
47040
               0.1
                                                                                                                                                                     C98970
47050
               01 HIST-UIST SYNC P
01 HIST-INDEX SYNC COMPUTATIONAL
                                                                                      PICTURE X
                                                                                                                       VALUE :1:.
47060
                                                                                                                                                                     C98970
47070
                                                                                       PICTURE S999 VALUE ZERO.
                                                                                                                                                                     C98970
               01 HIST-THUEX-2 SINC COMPUTATIONAL
470A0
                                                                                                                                                                     C98970
                                                                                      PICTURE S999 VALUE ZERO.
PICTURE S9999999 VALUE ZERO.
PICTURE S999V99 VALUE ZERO
47090
                                                                                                                                                                     C98970
47100
                        HIST-TEMP SYNC
                                                                                                                                                                     C98970
                       HIST-INTERVAL-SIZE SYNC
COMPUTATIONAL.
HIST-FLAG SYNC
47110
47120
              01
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
             01 H1ST-FLAG SYNC
01 H1ST-SCALE-VALUE SYNC COMPUTATIONAL
01 H1ST-PERCENT S NC PICTURE S999 VALUE (1.
01 H1ST-PERCENT S NC PICTURE S999V99 COMPUTATIONAL.
01 H1ST-FLAG SYNC PICTURE S999V99 COMPUTATIONAL.
                                                                                                                                                                      98970
47150
47160
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
                      HIST-PERCENT S NO PICTURE STATE OF PICTURE STATE STATE
47180
                                                                                                                                                                     C98970
47190
                                                                                                                                                                     C98970
47200
                                                                                                                                                                     C98970
47210
                                                                                                                                                                     COROTO
                                                                                                                                                                     C98970
47220
                                                                                                                                                                     C98970
47230
47300
               01
                                                                                                                                                                     C98970
47310
                                                              :ERROR NO 0:.
47520
               01
                        HIST-ERH-3 SYN. .
                                                                                                                                                                     C98970
                        02 FILLER
02 HIST-ERR-2
                                                                                      PICTURE X(5) VALUE :85 > 1.
PICTURE S9(5) VALUE ZERO.
PICTURE X(10) VALUE
47530
                                                                                                                                                                     C98970
47340
                                                                                                                                                                      C98970
               DI HIST-ENH-4 SYNL
47350
                                                                                                                                                                     C98970
                                                              SERROR MAYS.
47560
47570
               01 HIST-EHR-5 SYNT
                                                                                     PICTURE XC101 VALUE
                                                                                                                                                                     C98970
                                                                :-MIN BAD. :.
THE SYNC PICTURE S999 COMPUTATIONAL.
47380
                                                                                                                                                                     C98970
47590
                        HIST-UUT-RANGE -VALUE SYNC
                                                                                                                                                                      C98970
                       FILLER SYNC.

02 FILLER OCCURS 200 TIMES.

03 HIS1-TABLE PICTURE S9051 COMPUTATIONAL.

03 HIS1-UPPER-LIMIT PICTURE S999999 COMPUTATIONAL.
47500
               01
                                                                                                                                                                      C98970
                                                                                                                                                                     C98970
47510
47530
                                                                                                                                                                      C98970
47540
                                                                                                                                                                     C98970
```

```
47550
                        03 HIST-T VBLE-SCALED PICTURE S999V99 COMPUTATIONAL.
                                                                                                                          C98970
                 HIST-NLW-PAGE SYNC.

02 FILLER

02 FILLER
47560
          01
                                                                                                                          C98970
                                                                PICTURE X
                                                                                                                          C98970
47570
                                                                                     VALUE II:.
                                                               PICTURE XE1223 VALUE SPACE.
PICTURE XE53 VALUE PAGE :.
                                                                                                                          C98970
47580
47582
                  0.2
                       FILLER
                                                                                                                          C98970
                 02 HIST-PAGE-NO
02 FILLER
HIST-TITLE SYN.
47584
                                                                PICTURE 9.
                                                                                                                          C98970
47590
                                                                PICTURE X
                                                                                     VALUE :#:.
                                                                                                                          C98970
          01
                                                                                                                          C98970
47600
                 02 FILLER
02 HISI-TITLE-1.
03 FILLER
47610
                                                                PICTURE XE33 VALUE IS I.
                                                                                                                          C98970
47020
                                                                                                                          C98970
47021
                                                                PICTURE XETOT VALUE SPACE.
                 02 HIST-TITLE -2.
03 FILLER
02 HIST-TITLE-3
47630
                                                                                                                          C98970
                                                               PICTURE XCIO3 VALUE SPACE.
PICTURE XCIO3 VALUE SPACE.
PICTURE XCIO3 VALUE SPACE.
PICTURE XC243 VALUE
47631
                                                                                                                          C98970
                                                                                                                          C98970
47640
                02 HIST-TITLE-3
02 HIST-TITLE-4
02 FILLER
: NO OF OBSERVATIONS >:.
02 HISI-NO-OF-OBS-RPT
PICTURE XE101 VALUE
03 FILLER
PICTURE XE131 VALUE
47050
                                                                                                                          C98970
47660
                                                                                                                          C98970
47070
                                                                                                                          C98970
                                                                                                                          C98970
470AD
                 02 FILLER
: VAL'IE MAX > :.
02 HIST-VALUE-MAX-RPT
                                                                                                                           C98970
47690
47700
                                                                                                                          C98970
47710
                                                                PICTURE ---- 9.
47720
                 02 FILLER : VAL & MIN > 1.
                                                                PICTURE XE 131 VALUE
                                                                                                                          C98970
                                                                                                                          C98970
                 02 HIST-VALUE-MIN-RPT
02 FILLER
47740
                                                                                                                          C98970
                                                                PICTURE ---- 9.
                                                                PICTURE XETB J VALUE
47750
                                                                                                                          C98970
47760
         01 HIST-UUI-LINE SYNC.
02 FILLER
                                                                                                                          C98971
47900
                                                               PICTURE XESOT VALUE
47910
                                                                                                                          C98970
47920
47922
                  02 FILLER
                                                              PICTURE XEBOJ VALUE
                                                                                                                          C98970
                  :-----
                 HIST-LAUEL SYNC.
47940 -
                                                                                                                          C98970
47950 01
                                                                                                                          C98970
                 HIST-LAUEL SYNC. C98970

02 FILLER PICTURE XC501 VALUE C98970

17 MIDPNT PCNT CUM FREQ 1...5...10...15...20.1 C98970

125...50...35...40...45...50...55...60...65...70...75...80... C98970

185...90...95. 100#:
HIST-LINE-OUT SYNC. C98970

02 FILLER PICTURE X VALUE 1/: C98970

02 HIST-LINE-PT PICTURE Z29. C98970

03 FILLER PICTURE Z29. C98970
47960
47970
47474
47980 -
47990 -
48000
         01
46010
                                                                PICTURE 229.
PICTURE X VALUE SPACE.
PICTURE ----.9.
48020
                 02 FILLER
02 HIST-MID-PUINT-RPT
02 HIST-PERCETT-RPT
48u30
                                                                                                                          C98970
48440
48060
                                                                PICTURE 229.9.
                                                                                                                          C98970
                  02 FILLER
48070
                                                                PICTURE X VALUE SPACE.
                                                                                                                          C98970
                  02 HIST-CUM-RPT
02 HIST-FREG-RPT
02 FILLER
                                                                PICTURE 229.9.
PICTURE 22229.
PICTURE X VALUE SPACE.
48080
                                                                                                                          C98970
48100
                                                                                                                          C98970
48110
                                                                                                                          C98970
                  02 HIST-POINT OCCURS 100 TIMES
48120
                                                                                                                          C98970
48130
                                                                 PICTURE X.
                                                                PICTURE X VALUE :#:.
48140
                                                                                                                          CORGIO
                  HIST-OUT-RANGE REC SYNC.
48150
         01
                                                                                                                          C98970
                  02 FILER PICTURE X[35] VALUE

:/ NUMBER OF OUT OF RANGE VALUES >:.

02 HIST-OUT-RANGE-RPT PICTURE Z29.

02 FILER PICTURE X[91] VALUE SPACE.

02 FILER PICTURE X VALUE ::.
48160
                                                                                                                          C98970
48170
                                                                                                                          C98970
48180
48190
                                                                                                                          C98970
                 02 FILLER
HIS1-SCALE-LINE SYNC.
02 FILLER
PICTURE XC27] VALUE
1/ SCALING FACTOR > 1.
02 HIS1-SCALE-RPT PICTURE Z29.
PICTURE XC099] VALUE SPACE.
PICTURE X VALUE 1#1.
48191
                                                                                                                          C98970
48200
          01
                                                                                                                          C 98970
48210
                                                                                                                          C98970
48220
                                                                                                                          C98970
48230
                                                                                                                          C98970
           02 FILLER
02 FILLER
01 FILLER SYNC.
48240
48250
                                                                                                                          C98970
48300
                                                                                                                          C98970
48310
                  02 HIST-VALUE OCCURS 1000 TIMES
                                                                                                                          C98970
                                                                PICTURE S9999V9 COMPUTATIONAL.
                                                                                                                          C98970
48320
           01 HIST-AC-WK SY'C.
05 CUTUFF-ISO
05 CUTUFF-NI
0S FILLER
PROCEDURE DIVISION
48350
                                                                                                                          C98970
                                                         PICTURE S9[2].
PICTURE S9[2].
PICTURE X[76].
                                                                                                                          C98970
48390
48.195
                                                                                                                          C98970
SOUDO
                                                                                                                          C98970
                  OPEN INPUT IN-FILE. IN-FILE-ISC. OPEN OUIPUT HIST-FILE.
50010
                                                                                                                          C98970
50020
                                                                                                                          C98970
                  OPEN OUTPUT HIST-FILE.

READ IN-FILE-ISC INTO HIST-AC-WK AT END GO TO CLOSE-FILES.

MOVE 1000 TO YNT.

PERFORM RESET-TABLE THRU END-RST-TABLE.

HEAD IN-FILE, AT END GO TO CLOSE-FILES.

WRITE HIST-REC FROM REPORT-ID.
50022
                                                                                                                          C98970
50030
                                                                                                                          C98970
50040
50050
                                                                                                                          C98970
                                                                                                                          C98970
50060
50100
           PARA
50110
                  MOVE 1 TO HIST-NO-OF-OBS.
                                                                                                                          C98970
                  MOVE NIC TO CL'A-MUC.

MOVE HILL TO CL'A-MUC.

MOVE HILL TO CL'A-MC.

MOVE LATA-TYPE-NEW TO DATA-TYPE.

MOVE ISCHRONAL-NEW TO ISCHRONAL.

IF DATA-TYPE N'T EQUAL TO ONE GO TO WEEKS-DATA ELSE 60 TO FLT-DATA.
                                                                                                                          C98970
50120
50130
                                                                                                                           C98970
50140
                                                                                                                          C98970
50150
50160
                                                                                                                           C98970
                                                                                                                           C98970
50170
```

```
TREAD IN-FILE, AT LND GO TO CLOSE-FILES.

IF UATA-TYPE-PEW IS EQUAL TO :9: GO TO CLOSE-FILES.

IF WC IS NOT EQUAL TO CUR-WUC GO TO PARA-2.

IF HMC IS NOT EQUAL TO CUR-HMC GO TO PARA-2.

ADD I TU HIST NO-OF-OBS.

IF DATA-TYPL POT EQUAL TO ONE GO TO WEEKS-DATA ELSE GO TO
50210
                                                                                                                                 C98970
50220
                                                                                                                                  C98970
50250
                                                                                                                                  C98970
                                                                                                                                  C98970
50250
50260
                                                                                                                                  C98970
50270
                                                  FLT-DATA.
                                                                                                                                 C98970
50300
                                                                                                                                 C98970
                   PERFORM SET-HISTOG THRU END-SH.
PERFORM RESET-TABLE THRU END-RST-TABLE.
50310
                                                                                                                                 C98970
50320
                    GO TO PARA-I.
50330
                                                                                                                                 C98970
            RESET-TABLE .
                                                                                                                                 C98970
                   MOVE ZENO TO CVI.
50410
50420
                                                                                                                                 COROTA
50430
                   ADD 1 TO CHT.
                                                                                                                                 C98970
            MOVE HINUS-ONE TO HIST-VALUE [CNT].

MOVE MINUS-ONE TO HIST-VALUE [CNT].

IF CHT IS LESS THAN KNT GO TO RST.

MOVE ZENO TO KNT.

END-KST-TABLE, LXIT.
50440
                                                                                                                                  C98970
 50445
                                                                                                                                 C98970
50450
                                                                                                                                 C98978
50455
                                                                                                                                 C98978
50460
                                                                                                                                 C98970
            SEI-HISTOU.
50510
                                                                                                                                 C98970
                   IF H15T-NO-UF-OUS IS NOT GREATER THAN CUTOFF-NI AND ISCHRONAL
                                                                                                                                 C98970
50515
                   IF HIST-NO-OF-OBS IS NOT GREATER THAN CUTOFF-NI AND ISCHRO
NOT EQUAL TO ONE GO TO END-SH.

IF HIST-NO-OF-OBS IS NOT GREATER THAN CUTOFF-ISO AND
ISCHRONAL TS EQUAL TO ONE GO TO END-SH.

IF ISCHRONAL IS EQUAL TO ONE MOVE I ISO : TO
HIST-TITLE-4, ELSE MOVE: NON-ISO : TO HIST-TITLE-4.

IF DATA-TYPE :S EQUAL TO ONE MOVE: MAN-HR/MA: TO
HIST-TITLE-5, ELSE MOVE: FLT-HOURS: TO HIST-TITLE-3.
50516
50517
                                                                                                                                 COROTO
50516
                                                                                                                                 C98970
50520
                                                                                                                                 C98970
50530
                                                                                                                                 C98970
50540
                                                                                                                                 C98970
50550
                                                                                                                                 C98970
           MOVE CHA-MUCT TO HIST-TITLE-I,
MOVE CHA-HMC-, TO HIST-TITLE-2,
PERFORM WRITE HISTOGRAM THRU END-HIST.
IF HIST-FLAG 'S FQUAL TO :: THEN A
ADD 1 TO NO-OF-HISTS.
END-SH. FXII.
 50560
50570
                                                                                                                                 C98970
 50540
                                                                                                                                 C98970
                                                    FQUAL TO ::: THEN GO TO CFI.
50600
                                                                                                                                 C08970
50610
                                                                                                                                 C98970
5.0020
                                                                                                                                 C98970
            WEEKS-DATA.
                                                                                                                                 C98970
51000
51010
                   MOVE ZERO TO CHT.
                                                                                                                                  C98970
            WEEK-A.

AUD 1 TO CNT.

IF ORS 15 EJUAL TO HIST-VALUE CCNTJ GO TO WEEK-C.

IF FREG-HIST-VALUE [CNTJ IS EQUAL TO ZERO GO TO WEEK-B.

IF CNT IS LESS THAN 1000 GO TO WEEK-A.

UISPLAY: MORE THAN 1000 FREQUENCY OCCURENCES: UPON CONSOLE.
51020
                                                                                                                                 CGRGTD
                                                                                                                                 C98970
51040
                                                                                                                                 C98970
51050
                                                                                                                                 C98970
51060
                                                                                                                                 C98970
51070
                                                                                                                                 C98970
51UA0
                    UO 10 CF1.
                                                                                                                                 C98970
            WEEK-H.
5IU90
                                                                                                                                 098970
                   MOVE ONS TO HIST-VALUE CONT.
IF ONE IS GREATER THAN KNT THEN MOVE ONT TO KNT.
51190
                                                                                                                                 C98970
51110
                                                                                                                                 C98970
51120
                                                                                                                                 C98970
                   ADD I TO FREO-HIST-VALUE [CNT].
51130
                                                                                                                                 C98970
                   GO TO HEADT.
51140
                                                                                                                                 C98970
            FLT-DATA.
52000
                                                                                                                                 C98970
                   MOVE ZERO TO CHT.
52910
                                                                                                                                 C98970
                                                                                                                                 C98970
                   ADD 1 TO CHT.
520.50
                                                                                                                                 COROTA
                   ADD 1 TO CNT.

IF ORSEL IS EQUAL TO HIST-VALUE [CNT] GO TO FLT-C.

IF FREE-HIST-VALUE [CNT] IS EQUAL TO ZERO GO TO FLT-B.

IF CHT IS LESS THAN 1000 GO TO FLT-A.

DISPLAY: MORE THAN 1000 FREQUENCY OCCURENCES: UPON CONSOLE.
52040
                                                                                                                                 C98970
52050
                                                                                                                                 C98970
52060
                                                                                                                                 C98970
52070
                                                                                                                                 C98970
                   60 10 CF1.
52080
                                                                                                                                 C98970
52090
                                                                                                                                 C98970
                  MOVE OBS-1 TO MIST-VALUE CONTS.
IF ONT IS GREATER THAN KNT THEN MOVE ONT TO KNT.
52100
                                                                                                                                 C98970
52110
                                                                                                                                 C98970
52120
                                                                                                                                 C98970
                   ADD 1 TO FREQ. HIST-VALUE CONT .
52150
                                                                                                                                 C98978
           GO TO READI.
52140
                                                                                                                                 C98970
52200
                                                                                                                                 C98970
                  PERFORM SET-H. STOG THRU END-SH.
52205
                                                                                                                                 C98978
52207
                                                                                                                                 C98970
                   CLOSE IN-FILE, HIST-FILE, IN-FILE-ISC. IF HIST-FLAG IS EQUAL TO SIT DISPLAY I HIST ERROR I UPON
52210
                                                                                                                                 C98970
52211
                                                                                                                                 C98970
                   DISPLAY : NO CF HISTOGRAMS > I NO-OF-HISTS UPON CONSOLE.
DISPLAY : EOJ C9897P : UPON CONSOLE.
52212
                                                                                                                                 C98970
52215
                                                                                                                                 C98978
52220
52230
                   GORACK.
                                                                                                                                 C98970
           COMPUTE-MEAN-VARIANCE.

IF HIST-NO-OF-OUS EQUAL TO 1 GO TO CMY-3.

MOVE ZERO TO CHT.

MOVE ZERO TO MEAN.
                                                                                                                                 C98970
95000
95005
                                                                                                                                 C98970
95010
95020
                                                                                                                                 C98970
950 10
            CMV-1.
                                                                                                                                 C98978
                   ADD I TO CHE.
95040
                                                                                                                                 C98970
                   COMPUTE TEMP-COMP > HIST-VALUE (CNT) . FREQ-HIST-VALUE (CNT). ADD TEMP-COMP TO MEAN.
45050
95060
                                                                                                                                 C98970
                   IF CHT IS LESS THAN KNT GO TO CHV-I. DIVICE HIST-NC OF-OUS INTO MEAN.
95070
                                                                                                                                 C98970
45UPO
                                                                                                                                 C98970
                   MOVE ZERO TO CHT.
95090
                                                                                                                                 COROTO
                                                                                                                                 C98970
```

50200

```
15110
            CMV-2.
                                                                                                                                     C98970
                    AOD I TO CHT.
95120
                                                                                                                                     C98970
95130
                    COMPUTE TEMP-COMP > [[HIST-VALUE [CNT] - MEAN] ** 2] *
                                                                                                                                     C98970
95140
                                                                     FREG-HIST-VALUE [CNT].
                                                                                                                                     C98970
                    AOD TEMP-COMP TO VARIANCE.

IF CNT IS LESS THAN KNT GO TO CMV-2.
95150
                                                                                                                                     C98970
95160
                                                                                                                                     C98970
                    COMPUTE VARIANCE > VARIANCE / [HIST-NO-OF-OBS - 1].
MOVE MEAN TO HEAN-RPT.
MOVE VARIANCE TO VARIANCE-RPT.
95170
                                                                                                                                     C98970
95180
95190
                                                                                                                                     C98970
                                                                                                                                     C98970
95191
                    GO TO CMV-4.
                                                                                                                                     C98970
95192
95193
                                                                                                                                     C98970
                    MOVE ZERO TO VARIANCE-RPT.
                                                                                                                                     C98970
95194
                    MOVE HIST-VALUE [ ] TO MEAN-RPT.
                                                                                                                                     C98970
95195
                                                                                                                                     C98970
95200
                    WRITE HIST-REC FROM MEAN-VARIANCE-LINE.
                                                                                                                                     C98970
            END-CMV.
95290
                                                                                                                                     C98970
            WRITE-HISTOGRAM,
MOVE :U: TO HIST-FLAG,
MOVE ZERO TO PIST-DUT-RANGE-VALUE,
MOVE ZERO TO PIST-PAGE-NO,
MOVE -9999.9 TO HIST-VALUE-MAX.
97000
                                                                                                                                     C98970
97080
                                                                                                                                     C98970
97090
                                                                                                                                     C98970
97100
                                                                                                                                     C98970
97140
                                                                                                                                     C98970
            MOVE <9999.9 ,0 HIST-VALUE-MIN.
MOVE ZERO TO 'IST-INDEX.
HIST-FIND-VMAX-VM'N.
97150
                                                                                                                                     C98970
97200
                                                                                                                                     C98970
97210
                                                                                                                                     C98970
                   THE FIND - VMAX - VM*N.

ADD 1 10 HIST-INDEX.

MOVE HIST-VALUE (HIST-INDEX) TO HIST-TEMP.

IF HIST-TLMP 'S GREATLR THAN HIST-VALUE-MAX THEN MOVE

HIST-TEMP TO HIST-VALUE-MAX.

IF HIST-TEMP IS LESS THAN HIST-VALUE-MIN THEN MOVE

HIST-TEMP TO HIST-VALUE-MIN.

IF HIST-INDEX IS LESS THAN KNT

THEN GO TO
97220
                                                                                                                                     C98970
97230
                                                                                                                                     C98970
97240
                                                                                                                                     C98970
                                                                                                                                     C98970
C98970
97250
97260
97270
97280
                                                                                                                                     C98970
                                                                                                                                     C98970
                   HIST-FINO-VMAX-VMIN.
MOVL ZERO TO HIST-VALUE-MI.
97281
97282
                                                                                                                                     C98970
                                                                                                                                     C98970
97283
                    MOVE HIST-VALLE-MIN TO HIST-TEMP.
                                                                                                                                     C98970
97284
97285
            SET-LOW.

IF HIST-TLMP LESS THAN 100 GO TO GOT-LOW.
SUBTRACT 100 FROM HIST-TEMP.
ADD 100 TO HIST-VALUE-MI.
                                                                                                                                     COROTO
                                                                                                                                     C98970
97286
                                                                                                                                     C98970
97287
                                                                                                                                     C98970
97288
                    GO TO SET-LOW.
                                                                                                                                     C98970
97289
97292
            GOT-LOW.
                                                                                                                                     COROTA
                                                                       COMPUTE HIST-NO-OF-INTERVALS >
                                                                                                                                     C98970
            LHIST-VALUE-MAX - HIST-VALUE-MI] / 1.0 < 4.
HIST-PRINT-TITLE.
97294
                                                                                                                                     C98970
97.500
                                                                                                                                     C98970
                   IF HIST-NO-OF-INTERVALS IS LESS THAN 50 MOVE 50 TO HIST-NO-OF-INTERVALS.
                                                                                                                                     C98970
97302
                                                                                                                                     COROTA
                    AOD I TO HIST-PAGE-NO.
97304
                                                                                                                                     C98970
                   MOVL 5 10 HIS1-LINE-CNT.
WRITE HIST-REC FROM HIST-NEW-PAGE.
MOVL HIST-NO-OF-OBS TO HIST-NO-OF-OBS-RPT.
MOVL HIST-VALUE-MAX TO HIST-VALUE-MAX-RPT.
MOVL HIST-VALUE-MIN TO HIST-VALUE-MIN-RPT.
WRITE HIST-RE. FROM HIST-TITLE.
97306
                                                                                                                                     C98970
97310
                                                                                                                                     C98970
97320
                                                                                                                                     C98970
97330
                                                                                                                                     C98970
97.340
                                                                                                                                     C98970
97350
                   WRITE HIST-REC FROM HIST-DOT-LINE.

WRITE HIST-REC FROM HIST-LABEL.

WRITE HIST-REC FROM HIST-LABEL.

WRITE HIST-REC FROM HIST-LABEL.
                                                                                                                                     C98970
97355
97356
97360
                                                                                                                                     C98970
                                                                                                                                     C98970
97370
                                                                                                                                     C98970
                                                                                                                                     C98970
97380
97390
                                                                                                                                     C98970
                   IF HIST-VALUE-MAX IS LESS THAN HIST-VALUE-MIN THEN 60 TO HIST-ERROR-2.

IF HIST-NO-OF-INTERVALS IS GREATER THAN 200 THEN MOVE 200 TO HIST-NO-OF-INTERVALS.
97410
                                                                                                                                     CGAGTO
                                                                                                                                     C98970
97420
97430
                                                                                                                                     C98970
97440
                                                                                                                                     C98970
                    MOVE ZERO TO LIST-INCEX.
                                                                                                                                     C98970
            HIST-RST.
ADD 1 TO HIST-INDEX.
97442
                                                                                                                                     C98970
                                                                                                                                     C98970
97443
                   ADD 1 TO HIST-INDEA.

MOVE ZERO TO HIST-TARLE (HIST-INDEX).

IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS

THEN GO TO HIST-RST.
97444
                                                                                                                                     C98970
97445
                                                                                                                                     C98970
97446
                                                                                                                                     C98970
                   NOTE COMPUTE UPPER LIMIT FOR EACH INTERVAL.

NOTE COMPUTE UPPER LIMIT FOR EACH INTERVAL.

MOVE ZERO TO HIST-INDEX.

MOVE HIST-VALUE-MI TO HIST-TEMP.
97450
                                                                                                                                     C98970
97500
                                                                                                                                     C98970
97510
97520
                                                                                                                                     C98970
                                                                                                                                     C98970
            MOVE HIST-VALUE-MI TO HIST-TEMP.

HIST-INC-INIERVAL.

ADO I TO HIST-INDEX.

ADD HIST-INTEFVAL-SIZE TO HIST-TEMP.

MOVE HIST-TEMP TO HIST-UPPER-LIMIT THIST-INDEX.

IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS THEN

GO TO HIST-INC-INTERVAL.

NOTE PLACE OCCURANCE INTO APPROPRIATE CHANNEL.

HIST-OCCURANCE.

HIST-OCCURANCE.
97530
                                                                                                                                     C98970
97540
97550
                                                                                                                                     C98970
97560
97570
                                                                                                                                     C98970
                                                                                                                                     C98970
97580
                                                                                                                                     C98970
97500
                                                                                                                                     C98970
97610
                                                                                                                                     C98970
            HIST-OCCUPANCE.

ADD 1 TO HIST-INDEX-2.

MOVE HIST-VALUE [HIST-INDEX-2] TO HIST-TEMP.

MOVE ZERO TO HIST-INDEX.

HIST-INTERVAL.
97620
                                                                                                                                     C98970
97n.50
                                                                                                                                     C98970
97640
97650
                                                                                                                                     COROTO
97060
                                                                                                                                     C98970
97070
                    AOD I TO HIST-INDEX
                                                                                                                                      C98970
                    MOVE FREG-HIST-VALUE [HIST-INDEX-2] TO A.
47675
                                                                                                                                     C98970
```

```
IF HIST-TEMP .S NOT GREATER THAN HIST-UPPER-LIMIT (HIST-IND'X) THEN GO TO HIST-ADD-TABLE.

IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS THEN GO TO
                                                                                                                                                  C98970
97680
97690
                                                                                                                                                  C98970
97700
                                                                                                                                                  C98970
                                                              HIST-INTERVAL.
97710
                                                                                                                                                  C98970
                     ADD A TO HIST OUT-RANGE-VALUE.
97720
                                                                                                                                                  C98970
97730
                                                                                                                                                  C98970
              HISI-ADD-TABLE.
             ADD A TO HIST-TABLE [HIST-INDEX].

HIST-NO-AUD.

IF HIST-INDEX-2 IS LESS KNT
NOTL COMPUTE SCALE VALUE.

MOVE HIST-TABLE [1] TO HIST-TEMP.

MOVE 1 TO HIST-INDEX.
97750
97751
                                                                                                                                                  C98970
                                                                                                                                                  C98970
                                                                                                 GO TO HIST-OCCURANCE.
97760
                                                                                                                                                  C98970
97800
                                                                                                                                                  C98970
97810
                                                                                                                                                  C98970
97820
            MOVE 1 TO HIST-INDEX.

HIST-SCALE.

ADD I TO HIST INDEX.

IF HIST-TABLE (HIST-INDEX) IS GREATER THAN HIST-TEMP THEN

MOVE HIST-TABLE (HIST-INDEX) TO HIST-TEMP.

IF HIST-INDEX IS L SS THAN HIST-NO-OF-INTERVALS THEN 60 TO

HIST-SCALE.

COMPUTE HIST-CALE-VALUE > (HIST-TEMP < 99] / IOO.

IF HIST-SCALE-VALUE LESS THAN 1 MOVE I TO HIST-SCALE-VALUE.

MOVE ZERO TO HIST-INDEX.

ADD I TO HIST-INDEX.
                                                                                                                                                  C98970
                                                                                                                                                   098970
97840
                                                                                                                                                  C98970
97850
                                                                                                                                                  C98970
97860
97870
                                                                                                                                                  C98970
                                                                                                                                                  C98970
                                                                                                                                                  C98970
97880
97490
                                                                                                                                                  C98970
 97895
97900
                                                                                                                                                  COROTO
                                                                                                                                                  C98970
97910
                     ADD I TO HIST-INDEX.
CUMPUTE HIST-TABLE-SCALED (HIST-INDEX) >
97920
97930
                                                                                                                                                  C98970
                                                                                                                                                  C98970
                     HIST-TABLE (HIST-INDEX) / HIST-SCALE-VALUE.

IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS THEN GO TO
97940
                                                                                                                                                  C98970
47450
                                                                                                                                                  C98970
 97460
                                                                      HIST-SCALED-VALUES.
                                                                                                                                                  C98970
                     NOTE PREPARE OU PUT DATA.
98000
                                                                                                                                                  C98970
                   NOTE PREPARE OU DUT DATA,
DIVITE 2 INTO H.ST-INTERVAL-SIZE,
MOVE ZERO TO "IST-CUM,
MOVE ZERO TO "IST-LINE,
ST-PREPARE,
PRUID
                                                                                                                                                  C98970
 98020
98030
                                                                                                                                                  C98970
98040
                                                                                                                                                  C98970
                     ADD 1 TO HIST-LINE.

MOVE HIST-LIN' TO HIST-LINE-RPT.

COMPUTE HIST-TEMP > HIST-UPPER-LIMIT (HIST-LINE)
98050
98060
                                                                                                                                                  C98970
                                                                                                                                                  C98970
98070
                     - HIST-INTERVAL-SIZE.

MOVE HIST-TEM. TO HIST-MID-POINT-RPT.

COMPUTE HIST-PERCENT > HIST-TABLE (HIST-LINE) * 100

/ HIST-NO-OF-085.
URURU
                                                                                                                                                  COROTO
98090
                                                                                                                                                  C98970
98100
                                                                                                                                                  C98970
9HIIU
                                                                                                                                                  C98970
                      MOVE HIST-PERCENT TO HIST-PERCENT-RPT.
                                                                                                                                                  C98970
                     MOVE HIST-PERCENT TO HIST-CUM.
ACD HIST-PERCENT TO HIST-CUM.
MOVE HIST-CUM TO HIST-CUM-RPT.
ACOVE HIST-CUM TO HIST-LINE) TO HIST-FREQ-RPT.
MOVE HIST-TABLE [HIST-LINE] TO HIST-FREQ-RPT.
MOVE ZERO TO HIST-INDEX.
IF HIST-DIST. S NOT EQUAL TO :0: GO TO HIST-CUM-1.
COMPUTE HIST-'NDEX-2 > HIST-TABLE-SCALED (HIST-LINE) < 0.5.
IF HIST-INDEX-2 IS LOUAL TO ZERO GO TO HIST-PREP-SPACE.
98130
                                                                                                                                                  C98970
98140
                                                                                                                                                  C98970
98150
98160
                                                                                                                                                  C98970
98170
                                                                                                                                                  C98970
SHIRD
                                                                                                                                                  C98970
98190
                                                                                                                                                  C98970
             HIST-PPEP-DIST.
ADD I TO HIST-INDEX.
MOVE ::: TO HIST-POINT CHIST-INDEX.
98200
                                                                                                                                                  C98970
99210
                                                                                                                                                  COROTA
98220
                                                                                                                                                  C98970
                     IF HIST-TUDEX IS LESS THAN HIST-INDEX-2 GO TO HIST-PREP-DIST.
IF HIST-INDEX IS EQUAL TO 100 THEN GO TO HIST-WRITE.
                                                                                                                                                  C98970
98240
                                                                                                                                                  COROTO
                      -PREP-SPACE.
98250
                                                                                                                                                  C98970
                     AOD I TO HIST-INDEX.
MOVE SPACE TO HIST-POINT CHIST-INDEX.
IF HIST-INDEX IS LESS THAN 100 THEN GO TO HIST-PREP-SPACE.
98260
                                                                                                                                                  C98970
98270
                                                                                                                                                  C98970
98280
                     GO 10 HIST-WRITE.
                                                                                                                                                 C98970
C98970
98290
98500
             HIST-CUM-1.
            HIST-CUM-1.

ADD 1 TO HIST-INDLX.

MOVE SPACE TO HIST-POINT [HIST-INDEX].

IF HIST-INDEX IS LESS THAN 100 THEN GO TO HIST-CUM-1.

COMPUTE HIST-INDEX > HIST-CUM < 0.5.

IF HIST-INDEX IS LOUAL TO ZERO GO TO HIST-WRITE.

MOVE :*: TO H'ST-POINT [HIST-INDEX].

HIST-WRITE.

HIST-WRITE.
                                                                                                                                                  C98970
98320
                                                                                                                                                  C98970
                                                                                                                                                  C98970
98330
                                                                                                                                                  C98970
98338
48333
                                                                                                                                                  C98970
                                                                                                                                                  C98970
98400
                                                                                                                                                  C98970
                      WRITE HIST-REG FROM HIST-LINE-OUT.
98410
                                                                                                                                                  0.98970
                     WRITE HIST-REC TROW HIST-LINE-OUT.

AND 1 TO HIST-LINE-CHT.

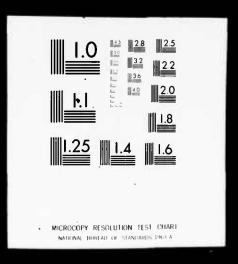
IF HIST-PAGL-FLAG IS EQUAL TO ZERO GO TO HIST-NO-PAGING.

IF HIST-LINE-CHT IS EQUAL TO HIST-PAGE-FLAG

THEN PERFORM HIST-PRINT-TITLE.
98412
                                                                                                                                                  C98970
98414
                                                                                                                                                  C98970
                                                                                                                                                   098970
98416
                                                                                                                                                  C98970
             HIST-NO-PAGING.
9/1420
                     IF HIST-LINE IS LESS THAN HIST-NO-OF-INTERVALS THEN GO TO
                                                                                                                                                  C98970
                                                                            HIST-PREPARE.
                                                                                                                                                  C98970
98430
                     WRITE HIST-RET FROM HIST-DOT-LINE.
MOVE HIST-SCALE-VALUE TO HIST-SCALE-RPT.
WRITE HIST-REC FROM HIST-SCALE-LINE.
IF HIST-OUT-RANGE-VALUE IS EQUAL TO ZERO GO TO HIST-WRITE-B.
MOVE HIST-OUT RANGE-VALUE TO HIST-OUT-RANGE-RPT.
                                                                                                                                                  C98970
98450
                                                                                                                                                  C98970
98470
                                                                                                                                                  C98970
98480
                                                                                                                                                  C98970
98430
                     WRITE HIST-REC FROM HIST-OUT-RANGE-REC.
                                                                                                                                                  C98970
             HIST-WRITE-U.
                                                                                                                                                  C98970
98500
98510
                     WRITE HIST-RE, FROM HIST-DOT-LINE. GO TO END-HIST.
                                                                                                                                                  C98970
90520
                                                                                                                                                  C98970
             HIST-ERKOR-I.
99000
                                                                                                                                                  C98970
```

GENERAL DYNAMICS SAN DIEGO CALIF CONVAIR AEROSPACE DIV F-106 SCHEDULED MAINTENANCE STUDY. USER'S MANUAL,(U) SEP 72 G WANG, R S GROTE, J R COOPER F41608-GDCA-AHD72-006 AD-A045 625 F/G 1/5 F41608-71-D-1383 UNCLASSIFIED NL 5 of 6 ADA045625

5 of 6 ADA045625



```
99UIO WRITE HIST-REC FROM HIST-TITLE.

99U20 MOVE HIST-EHR-I TO HIST-TITLE-1.

99U30 MOVE HIST-EHR-I TO HIST-ERR-2.

99U30 MOVE HIST-NO-Y-OUS TO HIST-ERR-2.

99U50 WRITF HIST-REC FROM HIST-TITLE.

99U50 MOVE :1: TO HIST-FLAG.

99U50 GO TO EMD-HIS.

99100 HIST-ERROH-2.

99110 MOVE HIST-ERR-4 TO HIST-TITLE-1.

99110 MOVE HIST-FRR-5 TO HIST-TITLE-2.

99130 WRITE HIST-HE. FROM HIST-TITLE.

99130 WRITE HIST-HE. FROM HIST-TITLE.

99140 MOVE HIST-FRR-5 TO HIST-TITLE.

99150 GO TO EMD-HIST.

99100 HIST-ERROH-3.

99100 HIST-ERR-5.

99100 MOVE :1: TO H'ST-FLAG.

99100 MOVE :1: TO H'ST-FLAG.

99100 HIST-ERR-3.

99200 MOVE :1: TO H'ST-FLAG.

99390 END-HIST. EXIT.

99390 END-HIST. EXIT.

99390 END-HIST. EXIT.

1440 COS

1440 COS

1560 DT01 11 0202080

7/CHG.TFGIN DD #SFACES(CYL,(1:1)]

7/P TU12 DU DISP/SOLD.KEEP].VOL.SER>+F1.UNIT>T+F1

T12

7//PR.TU25 DU DISP/SOLD.KEEP].VOL.SER>+F8.UNIT>T+F8

7/P TU12 1010020200

7/P TU25 1100130R000

PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

6.9 PROGRAMS FOR INTERVAL LENGTH ANALYSES

6, 9, 1 PREPROCESSOR - TASK III

```
01:1 G. WANG. 1:PR7Y>02:7YPRUN>MOLD
P9655L:TIME>03:ACCT>D35323007
DU DISP>(:PASS):UNIT>(A+F3:2)EFFER:DSN>+C.9897416:
VUL>SERY(+F3:A+F3:B+F3:C+F3:D+F3:E+F3:F+F3:6+F3:M+F3:
1+F3:J+F3:K+F3:L+F3:M+F3:N+F3:0+F3:P+F3:0+F3:R+F3:S+F3]
//C98978 JOB
                                                                                                                                       CT14/15
//CHG. TU14
                                                                                                                                       CT14
T14
 //CHG. TU22
                             DU 015P>(.pASS 1.UNIT>(A+F5.2.DEFER 1.DSN)+E.9897429.
VUL>SER>(+F5.A+F5.B+F5.C+F5.D+F5.E+F5.F+F5.G+F5.H+F5.
I+F5.J+F5.K+F5.L+F5.H+F5.N+F5.O+F5.P+F5.Q+F5.R+F5.S+F61
                                                                                                                                       CT22/23
                                                                                                                                       CT22
                             OU UISP>(.PASS],UNIT>(T+F7:1,UEFER],USN>+6.9897420,
VOL>SER>(+F7:A+F7:B+F7:C+F7:D+F7:E+F7:F+F7:G+F7:H+F7:
                                                                                                                                      CT24
//CHG. TU24
                             THE FIRST COMPILE

COMPILE

G. WANG.
11
//CHG. 1NPUT
                                                                                                                                          1440 CDS
             IDENTIFICATION DIVISION.
PROGRAM-ID. C9897
01000
01010
                                                                                                                                             C98970
             AUTHOR. A. J. BOWKER.
INSTALLATION. GENERAL DYNAMICS/CONVAIR.
01020
                                                                                                                                              C98970
                                                                                                                                             C98970
01030
             DATE-WRITTELL 20 MAR 72.
                                                                                                                                              C98970
U1 U4 O
             REMARKS.
MAINTENANCE STUDY
LENG
01050
                                                                                                                                             C98970
                                                                                                                                              C98970
01060
                                                                PROGRAM 3A.
                                   INTERVAL LENGTH ANALYSIS.

TOTAL TASK COMPRISES OF FIVE PARTS

1. CALCULATION OF INERVALS FOR ALL AIRCRAFT
SUB-SET, FOR BOTH INSPECTION INTERVAL
LENGTHS AND REPAIR ACTION INTERVALS.
U1U70
                                                                                                                                             C98970
UTURU
                                                                                                                                             C98970
01090
01100
                                                                                                                                              C98970
                                           LENGTHS AND REPAIR ACTION INTERVALS.
ALL OBSERVATION ACCUMULATED IN TWO
TAPE-FILES (PROGRAM 3A)

2. SORTING OF INSPECTION INTERVAL LENGHS TO
GROUP AIRCRAFT SUB-SETS AND WUC.
3. SORTING OF REPAIR INTERVAL LLINGTHS TU
GROUP AIRCRAFT SUB-SETS, WUC AND HMC.
4. PREPARE DISTRIBUTIONS FOR INSPECTION
INTERVALS (PROGRAM 3B).
5. PREPARE DISTRIBUTIONS FOR REPAIR ACTION
INTERVALS (PROGRAM 3C).
                                                                                                                                             C98970
U111U
                                                                                                                                              C98970
01130
                                                                                                                                             C98970
01140
                                                                                                                                              C98970
01150
                                                                                                                                              COAGTO
                                                                                                                                             C98970
U1160
01170
                                                                                                                                              C96970
                                                                                                                                             C98970
U1180
                                                                                                                                              C98970
U1<00
                                                                                                                                             COROTO
                                                                                                                                              C98970
01210
U2U00
             ENVIRONMENT DIVISION.
                                                                                                                                             C98970
             CUNFIGURATION SECTION.
                                                                                                                                             C98970
02010
             SOURCE-COMPUTER. IBM-360.
OBJECT-COMPUTER. IBM-360.
1MPDT-OUTPUT SECTION.
02020
U2U30
                                                                                                                                             C98970
                                                                                                                                             C98970
02100
             FILE-CONTROL
                                                                                                                                             C98970
U2110
                    SELECI IN-FILE-D-B
RESERVE 1 ALTERNATE AREA.
02130
                                                                              ASSIGN TO UT-S-TU14
                                                                                                                                             C98970
                                                                                                                                              C98970
                    SELECT IN-FILE-ISC
RESCRVE 1 ALTERNATE AREA.
SELECT OUT-FILE-1
RESCRVE 1 ALTERNATE AREA.
SELECT OUT-FILE-2
                                                                              ASSIGN TO DA-S-UT01
                                                                                                                                              C98970
                                                                                                                                             C98970
U215U
                                                                              ASSIGN TO UT-S-TU22
                                                                                                                                              C98970
U218U
02190
                                                                                                                                             C98970
                                                                              ASSIGN TO UT-5-TU24
02200
             RESERVE 1 ALTERNATE AREA.
DATA DIVISION.
FILE SECTION.
02210
                                                                                                                                              C98970
                                                                                                                                              C98970
10000
10010
                                                                                                                                              C98970
                   IN-FILE-D-B

RECURUING MODE IS F

BLOCK CUNTAINS 40 RECORDS

RECURU CONTAINS 70

LARLL KLCORUS AKE OMITTED

DATA RECORUS ARE IN-REC-D-B.
10100
             Fυ
                                                                                                                                              C98970
10120
                                                                                                                                              C98970
10130
                                                                                                                                             C98970
                                                                             CHARACTERS
                                                                                                                                              C98970
10140
10150
                                                                                                                                              C98970
                                                                                                                                             C98970
10160
                     IN-KEC-U-IT SYNC .
                                                                                                                                              C98970
10200
             01
                     02 FILLER
10210
                                                                           PICTURE X[70].
                                                                                                                                              COROTO
                                                                                                                                              C98970
10220
                     IN-FILE-ISC
RECORDING MODE IS F
BLOCK CONTAIN: 20 RECORDS
11300
             FO
                                                                                                                                             C98970
11320
11330
                                                                                                                                              C98970
                                                                                                                                             C98970
                     RECORD CONTAINS 80
LABEL RECORDS ARE STANDARD
DATA RECORDS ARE IN-REC-ISC.
11340
11350
                                                                            CHARACTERS
                                                                                                                                              C98970
11360
                                                                                                                                              C98970
                    IN-REC-ISC SY'IC.
11400
             01
                                                                                                                                              C98970
11410
                                                                           PICTURE Xt 801.
                    OZ FILLER
OUT-FILE-1
RECORDING MOLE IS F
BLOCK CONTAINS 90 RECORDS
HECURD CONTAINS 20
LARL HECORDS ARE OMITTED
DATA RECORDS ARE OUT-REC-1,
OUT-REC-1 SYNC.
OZ FILLER
OUT-FILL-2
RECORDING MOCT IS F
                                                                                                                                              C98970
12100
12120
                                                                                                                                              C98970
                                                                                                                                              C98970
12140
12150
                                                                            CHARACTERS
                                                                                                                                              C98970
                                                                                                                                              C98970
12160
12200
             01
                                                                                                                                              COROZA
 12210
                                                                           PICTURE X[20].
                                                                                                                                              C98970
14100
                                                                                                                                              C98970
                    OUT-FILL-?
RECOPDING MOTT IS F
HLOCK CONTAINS 90 RECORDS
RECOPU CONTAINS 20
LAME A RECORDS ARE OMITTED
HATA HILORDS ARE OUT-REC-2.
14120
                                                                                                                                              C98970
14130
                                                                                                                                              C98970
                                                                            CHARACTERS
                                                                                                                                              COAGTO
14150
14160
                                                                                                                                             C98970
```

```
OI OUT-HEC-2 SYNC.
                                                                                                                                   C98970
14200
14210
            02 FILLER
WORKING-STURAGE SECTION.
                                                                    PICTURE XE 201.
                                                                                                                                  C98970
C98970
30000
                   CURWELK SYNC
CUR-SER-NO SYNC
                                                                    PICTURE 999.
PICTURE XE83.
                                                                                                                                   C98970
30020
30030
                                                                                                                                   C98970
                   CUR-ISC SYNC
KNT SYNC COMPUTATIONAL
WEEK-IEMP SYNC
DELTA-MEEK SYNC
DELTA-FLT-HRE SYNC
                                                                     PICTURE X.
                                                                                                                                   C98970
30040
                                                                     PICTURE S999.
PICTURE 999.
PICTURE 5999.
 30050
                                                                                                                                   C98970
                                                                                                                                   C98970
30060
30070
                                                                    PICTURE $999.
PICTURE $999999.
PICTURE $999999.
PICTURE $999999.
PICTURE $997 VALUE ZERO.
PICTURE $917 VALUE ZERO.
PICTURE $917 VALUE ZERO.
PICTURE X VALUE 111.
PICTURE X VALUE 121.
PICTURE X VALUE $PACE.
PICTURE X VALUE $PACE.
PICTURE X VALUE $PACE.
PICTURE X VALUE $PACE.
ONAL PICTURE $999 VALUE $
                                                                                                                                   C98970
30UB0
                                                                                                                                   C98970
                   CUR-FLI-HRS SYNC
FLAG SYNC COMPUTATIONAL
NO-REC-1 SY IC
NO-REC-2 SYNC
30090
30100
30130
                                                                                                                                  C98970
            77
                   NO-REC-2 SYNC
CNT SYNC COMPUTATIONAL
ONE SYNC
TWO SYNC
                                                                                                                                  C98970
C98970
30140
30170
                                                                                                                                  C98970
30380
30390
30400
                   ISC-TEMP
                                                                                                                                   C98970
                   PREV-TESTED-SH SYNC
30410
30420
            77
77
                                                                                                                                  C98970
                   ISC-PLAG SYNC PICTI
MIN-ISC-WEEK SYNC COMPUTATIONAL
NO-ISC SYNC.
02 FILLER PICTI
02 NU-ISC-AC PICTI
02 FILLER PICTI
                                                                             PICTURE S999 VALUE 4999.
                                                                                                                                  C98970
C98970
30430
SIUIO
            01
31020
                                                                    PICTURE XX.
PICTURE $999.
PICTURE XE75].
                                                                                                                                   C98970
31030
                                                                                                                                   C98970
                                                                                                                                  C98970
31040
                   ISC-A-C SYNC.
02 FILLER
02 ISC-TN
02 FILLER
02 ISC-WK
                                                                                                                                  C98970
31050
            01
                                                                    PICTURE XX.
PICTURE XX.
PICTURE XX.
PICTURE 999.
31060
31070
                                                                                                                                   C98970
31080
31090
                                                                                                                                  C98970
C98970
31100
                          FILLER
                                                                     PICTURE XE653.
                                                                                                                                   C96970
                   FILLER SYNC. 02 FILLER OCCURS 36 TIMES.
31200
31205
            01
                                                                                                                                  C98970
                                                                                                                                  C98970
                          03 ISC-AG-TN PICTURE XEB3.
03 ISC-AG-WK COMPUTATIONAL PICTURE 5999.
31210
                                                                                                                                   C98970
                                                                                                                                  C98970
31220
                   UATA-BANK-INPUT SYNC.

02 FILLER

02 SERIAL-NL
                                                                                                                                  C98970
31300
31310
                                                                     PICTURE XCS 3.
31320
                                                                     PICTURE XEB ].
                                                                                                                                   C98970
31330
                          WEEK
                                                                     PICTURE 999.
                                                                                                                                   C98970
                                                                     PICTURE XESJ.
                                                                                                                                   C98970
                          WUC
31340
                   02
31350
                   02
                          WUC-B REDEFINES WUC.
                                                                                                                                   C98970
31360
31370
                          03 WUC-2
03 FILLER
                                                                    PICTURE XX.
PICTURE XXX.
                                                                                                                                   C98970
                                                                                                                                   C98970
                                                                    PICTURE X.
PICTURE XXX.
PICTURE S999
31380
                          FILLER
                                                                                                                                   C98970
                          HMC
UNITS
                                                                                                                                   C98970
31390
31400
                   02
                                                                                                                                   C98970
 31410
                          F1LLER
                                                                     PICTURE XL203.
                                                                                                                                   C98970
                                                                     PICTURE 9.
                                                                                                                                   C98970
                          IDENT
31420
                   02
31430
31440
31450
                                                                     PICTURE XC4 3.
PICTURE S9C6 3.
                          FILLER
FLT-HRS
FILLER
                                                                                                                                   C98970
C98970
                   02
                    02
                                                                     PICTURE XEILI.
                                                                                                                                   C98970
                   02
                                                                                                                                  C98970
C98970
                          -DATA SYNC .
31500
                   OUT
                                                                     PICTURE XES3.
PICTURE XXX VALUE SPACE.
                   02
                          CURMUC
31510
                                                                                                                                   C98970
31520
31530
                          FILLER
                                                                     PICTURE X VALUE SPACE.
PICTURE S966].
                                                                                                                                   C98970
                                                                                                                                   C98970
31540
31550
                          OUS
FILLER
                    02
                                                                     PICTURE X VALUE SPACE.
                                                                                                                                   C98970
                   02
                                                                    PICTURE X.
PICTURE X VALUE SPACE.
PICTURE X.
PICTURE X VALUE $$\frac{1}{2}$$:
11560
                          ISCHRONAL
FILLER
                                                                                                                                   C98970
                                                                                                                                   C98970
31570
                    02
                          DATA-TYPE
                                                                                                                                   C98970
31580
                   02
31590
31690
                   02 FILLER
FILLER SYNC.
                                                                                                                                   C98970
            01
                                                                                                                                   C98970
                                                                    PICTURE S999 COMPUTATIONAL.
PICTURE S963 COMPUTATIONAL.
                   02 WEEK-HMC
02 FLT-HRS-HMC
                                                                                                                                   C98970
31720
31730
            01
                   NINE SYNC.
02 FILLER
                                                                                                                                   C98970
31800
31810
31820
41370
41380
                                                                     PICTURE XE203 VALUE
                                                   199999999999999999991.
                                                                                                                                   C98970
                  SPEC-SG-WUC-REC SYNC.

O2 SPEC-SG-) UC

O2 SPEC-WEEY-A

O2 FILLER
FILLER SYNC.

O2 SPEC-SGW(T-LIST

OCCUMS 10 TIMES.
                                                                                                                                   C98970
            01
                                                                                                                                   C98970
                                                                     PICTURE XESJ.
                                                                    PICTURE 999.
PICTURE XE723.
                                                                                                                                   C98970
41390
                                                                                                                                    C98970
41400
45000
            01
                                                                                                                                   C98970
                                                                                                                                   C98970
                                                                     PICTURE XEST
45010
                                                                                                                                   C98970
C98970
45020
                   U2 SPEC-WEEK-LIST
OCIUMS 10 TIMES,
NO-SPEC-SG-WIC SYNC
SPEC-MUC SYNC
                                                                    PICTURE 999
450.30
45040
                                                                                                                                   C98970
C98970
                                                                    PICTURE S999 COMPUTATIONAL.
PICTURE XC5].
PICTURE 999.
PICTURE S999 COMPUTATIONAL.
45050
            01
                                                                                                                                   C98970
                   SPEC-WEEK SYNC
SPEC-THUEX SYNC
45060
45070
                                                                                                                                   C98970
                                                                                                                                   C98970
45UA0
            PROCEDURE DIVISION.
                                                                                                                                   C98970
50000
            OPEN-FILES.

OPEN INPUT II-FILE-D-8; IN-FILE-ISC.

OPEN OUIPUT CUT-FILE-1; OUT-FILE-2.

PERFORM READ-ISC-A-C THRU END-RIAC.

PERFORM READ-SPLC-SG-WUC THRU END-RSSW.
                                                                                                                                   C98970
50010
                                                                                                                                   C98970
50020
                                                                                                                                   C98970
 50040
                                                                                                                                    C98970
50050
                                                                                                                                   C98970
50055
            READ-INITIAL.
50060
```

```
REAU 14-FILE-D-B INTO DATA-BANK-INPUT.
AT END GD TO CLOSE-FILES.
 50070
                                                                                                                                        C98970
 50080
             CHECK-DATA.
 50100
                    IF IDENT IS EQUAL TO 3 GO TO PROC-III-2.
IF ICENT 15 EQUAL TO 4 GD TO PROC-III-1.
 50120
                                                                                                                                        C98970
 50160
                                                                                                                                        C98970
 50170
                     GO TO READ-INITIAL.
                                                                                                                                        C98970
             PROC-111-2.
PERFORM CHECK-15CHRONAL THRU END-CI.
 50200
                                                                                                                                        C98970
                    MOVE ISCHRONAL TO CUR-ISC.
MOVE WUC TO CURWUC.
MOVE WEEK TO TURWEEK.
MOVE SERIAL-NO TO CUR-SER-NO.
 50202
                                                                                                                                        C98970
 50210
                                                                                                                                        C98970
 50220
                                                                                                                                         C98970
 50230
                                                                                                                                        C98970
                     MOVE FLT-HRS TO CUR-FLT-HRS.
 50250
                                                                                                                                        C98970
             GO TO SET-FLAG.
 50260
 50300
                                                                                                                                        C98970
                    50301
 50302
                                                                                                                                        C98970
 50310
                                                                                                                                        C98970
                                                                                                                                         C98970
 50320
 50330
                                                                                                                                        C98970
             PROC-111-2H.
 50331
                                                                                                                                         C98970
                     ADD 1 TO SPEC-INDEX.

1F WUC 15 EUTAL TO SPEC-SGWUC-LIST [SPEC-INDEX] 90 TO
 50332
                                                                                                                                        C98970
                                                                                                                                        C98970
 50333
                     PROC-55EU-SGWUC-LIST ISFEC-INDEX 3 60 TO
PROC-5EC-SGWUC 60 TO PROC-111-28.

IF UNITS IS LEGATIVE GD TO READ-SUB.

COMPUTE DELIT-WEEK > WEEK - CURWEEK - I.
 50334
                                                                                                                                        C98970
 50335
                                                                                                                                        C98970
                                                                                                                                        C98970
 50337
 50340
                     MOVE WELK TO CURWEEK.

COMPUTE DELTA-FLT-HRS > FLT-HRS - CUR-FLT-HRS.
 50350
                                                                                                                                        C98970
 50360
                                                                                                                                        C98970
 50380
                     MOVE FLI-HRS TO CUR-FLI-HRS.

IF FLAG EQUAL ZERO GO TO SET-FLAG.

MOVE UELTA-WEEK TO OBS.
 50400
                                                                                                                                        C98970
 50410
                                                                                                                                        C98970
                    MOVE OLLTANEER TO OBS.

WRITE OUT-REC-2 FROM OUT-DATA.

MOVE DELTA-FLT-HRS TO OBS.

MOVE TWO TO DATA-TYPE.
 50420
                                                                                                                                        C98970
 50430
                                                                                                                                        C98970
 50440
 50450
                                                                                                                                        C98970
 50460
                     WRITE OUT-REC-2 FROM OUT-DATA.
                                                                                                                                        C98970
 50465
                     ADD 2 TO NO-FEC-2.
                                                                                                                                        C98970
             SET-FLAG.
MOVE 1 TO FLAG.
IF UNITS IS EQUAL TO ZERO THEN MOVE ZERO TO FLAG.
 50500
                                                                                                                                        C98970
 50520
                                                                                                                                        C98970
                                                                                                                                        C98970
 50525
 50530
                    READ IN-FILE-D-B INTO DATA-BANK-INPUT.
                                                                                                                                        C98970
                                                       AT END GO TO CLOSE-FILES.
50540
                                                                                                                                        C98970
                     GO TO PROC-11!-2A.
 50550
            PROC-SPEC-SGWUC.

COMPUTE DELTA-WEEK > WEEK - CURWEEK - I.

SUBTRACT 2 FR M SPEC-WEEK-LIST (SPEC-MEEK)

IF DELTA-WEEK IS GREATER THAN SPEC-WEEK 60 TO

SUBSECULATION OF THE SPEC-WEEK CONTOC OF THE SPEC-WEEK.
 50600
                                                                                                                                        C98970
 50610
                                                                                                                                        C98970
 50615
                                                                                                                                        C98970
 50020
                                                                                                                                        C98970
                                                   END-SG-WUC-INSPEC.
            NOT-END-50-WUC-INSPEC.
50630
                                                                                                                                        C98970
                    MOVE FLI-HRS TO CUR-FLI-HRS.
MOVE WEEK TO CURWEEK.
GO TO READ-SUB.
 50640
                                                                                                                                        C98970
50550
                                                                                                                                        C98970
                                                                                                                                        C98970
50660
            GO TO READ-SUB-
END-5G-WUC-INSPEC.
MOVE DELTA-WETK TO DBS.
MOVE DNE TO DATA-TYPE.
WRITE OUT-REC-2 FROM OUT-DATA.
COMPUTE OBS : FLT-HRS - CUR-FLT-HRS.
MOVE TWO TO CATA-TYPE.
WRITE OUT-REC-2 FROM OUT-DATA.
ADD 2 TO ND-K-C-2.
GO TO NOT-ENC-SG-WUC-INSPEC.
PHOC-III-IA
50700
50710
                                                                                                                                        C98970
                                                                                                                                        C98970
50730
                                                                                                                                        C98970
50740
                                                                                                                                        C98970
50750
                                                                                                                                        C98970
50760
                                                                                                                                        C98970
50770
50780
                                                                                                                                        C98970
             PROC-111-1.
51000
                    MOVE WUC TO CURWUC.
PERFORM CHECK ISCHRONAL THRU END-CI.
MOVE SERIAL-NJ TO CUR-SER-NO.
MOVE ISCHRONAL TO CUR-ISC.
51030
                                                                                                                                        C98970
51040
                                                                                                                                        C98970
51050
                                                                                                                                        C98970
51060
                                                                                                                                        C98970
                    MOVE HMC TD CURHMC.
MOVE WEEK TO WEEK-HMC.
MOVE FEI-HR5 TD FET-HR5-HMC.
51070
51080
                                                                                                                                        CGAGTO
 1090
                                                                                                                                        C98970
51100
           PEAD-III-1.

REAU IN-FILE-D-B INTO DATA-BANK-INPUT.

AT END GO TO CLOSE-FILES.

IF ICENI IS EQUAL TO 9 THEN GD TO CLOSE-FILES.

IF IDENI IS MOT EQUAL TO 4 GO TO READ-III-1.

IF UNITS IS EQUAL TO ZEND 00 TO READ-III-1.

IF HMC IS NOT EQUAL TO CURNMC GO TO PROC-III-1.

IF SERIAL-NO IS NOT EQUAL TO CURNUC BO TO PROC-III-1.

IF WUL IS NOT EQUAL TO CURNUC BO TO PROC-III-1.

IF WUL IS NOT EQUAL TO CURNUC BO TO PROC-III-1.

PEPFORM CHECK-ISCHEDNAL THRU ENDO-CI.

IF ISCHHONAL IS NOT EQUAL TO CUR-ISC GO TO PROC-III-1.

WHITE-HMC.

CONDUIE DELTA-WEFK > WEFK - WEEK-LAMAC.
            PEAD-111-1.
                                                                                                                                        C98970
51110
                                                                                                                                        C98970
51120
                                                                                                                                        C98970
51130
51140
                                                                                                                                        C98970
                                                                                                                                        C98970
                                                                                                                                        C98970
51150
51160
51170
51180
                                                                                                                                        C98970
51190
51300
                                                                                                                                        C98970
                    COMPUTE DELTA-WEEK > WEEK - WEEK-HMC.
COMPUTE DELTA-FLT-HRS > FLT-HRS - FLT-HRS-HMC.
MOVE WEFK TD WEEK-HMC.
51310
                                                                                                                                        C98970
51320
                                                                                                                                        C98970
```

```
MOVE FLI-HRS TO FL7-HRS-HMC.
MOVE DELTA-WEEK 70 OBS.
MOVE ONE TO LATA-TYPE.
WRITE OUT-REC-1 FROM OUT-OATA.
ADO 1 TO NO-REC-1.
51350
51360
                                                                                                                                C98970
                                                                                                                                 C98970
51370
                                                                                                                                 C98970
51390
                                                                                                                                 C98970
51395
                                                                                                                                 C98970
                   IF UNITS IS GREATER THAN <1 PERFORM WRITE-ZERO-DATA THRU END-WRITE-ZERO-DATA.
51397
51398
                                                                                                                                 C98970
                                                                                                                                 C98970
                  MOVE DELTA-FLT-HRS TO 085.

MOVE TWO 70 OATA-7YPE.

WRITE OUT-REC-1 FROM OUT-DATA.

ADD 1 TO NO-PEC-1.
51400
51410
                                                                                                                                 C98970
                                                                                                                                 C98970
51420
                                                                                                                                 C98970
51425
51430
                   IF UNITS IS GREAGER THAN CI PERFORM WRITE-ZERO-DATA THRU
                                                                                                                                 C98970
                                                                         END-WRITE-ZERO-DATA.
                                                                                                                                 C98970
                   GO TO PROC-1:1-1.
51480
                                                                                                                                 C98970
            CLOSE-FILLS.
51800
                                                                                                                                 C98970
                  COMPUTE KNT > NO-REC-1 - NO-REC-1 / 90 + 90.

1F KNT 15 ZEHO GO TO CF-2.
                                                                                                                                 C98970
51810
51820
                                                                                                                                 C98970
                   PERFORM NINE FILL-1 THRU N-F-1.
51830
                                                                                                                                 C98970
51840
            CF-2.
                                                                                                                                 C98970
                  COMPUTE KNT > NU-REC-2 - NO-REC-2 / 90 • 90.

IF KNT IS ZEKJ GO TO CF-3.

PERFORM NINE-TILL-2 THRU N-F-2.
51850
                                                                                                                                 C98970
51870
                                                                                                                                 C98970
51900
                  OISPLAY: NUMBER RECORDS-1 1 NO-REC-1 UPON CONSOLE.
OISPLAY: NUMBER RECORDS-2 1 NO-REC-2 UPON CONSOLE.
DISPLAY: END OF JOB C989781 UPON CONSOLE.
CLOSE IN-FILE-D-B, OUT-FILE-1, IN-FILE-ISC,
OUT-FILE-2 WITH LOCK.
51910
                                                                                                                                C98970
51920
                                                                                                                                 C98970
51940
51950
                                                                                                                                 C98970
51960
51990
                   GOBACK
                                                                                                                                 C98970
            WRITE-ZERO-DATA.
52000
                                                                                                                                 C98970
                   MOVE UNITS TO CHT.
MOVE ZEHO TO OBS.
52010
                                                                                                                                 C98970
52020
                                                                                                                                 C98970
52030
                   SUBTRACT I FROM CNT.
52040
                                                                                                                                 COROTA
                   MRITE OUT-REC-1 FROM OUT-OATA.
AOD 1 70 NO-1 EC-1.
IF CNT 15 GREATER THAN 1 GO 70 W-Z-D.
52050
                                                                                                                                C98970
52055
                                                                                                                                 C98970
52060
                                                                                                                                 C98970
52070
            END-
                   WRITE-ZERO-OATA.
            READ_ISC-A-C.
READ_IN-FILE-ISC INTO NO-ISC AT END GO TO END-RIAC.
70000
                                                                                                                                 C98970
 70010
70u20
                   MOVE ZERO TO KNT.
                                                                                                                                 C98970
            RIAC.
 70030
                                                                                                                                C98970
                  ADD 1 TO KNT.

HEAU 1M-FILE-ISC 1NTO ISC-A-C A7 END 60 TO END-RIAC.

MOVL ISC-TN TO ISC-AC-TN [KNT].

MOVL ISC-WK TO ISC-AC-WK [KNT].
70040
                                                                                                                                 C98970
70050
                                                                                                                                C98970
 70060
70070
                                                                                                                                C98970
                   IF ISC-WK IS LESS THAN MIN-ISC-WEEK MOVE ISC-WK TO FIN-ISC-WEEK.
 70075
                                                                                                                                C98970
70076
                                                                                                                                 C98970
                   IF KNT 15 LEFS THAN NO-ISC-AC GO TO RIAC.
 70080
                                                                                                                                 C98970
           END-RIAC. EXIT.
CHECK-ISCHRONAL.
 70090
 70200
                                                                                                                                 C98970
                   IF SERIAL-NO IS NOT EQUAL TO PREV-TESTED-SN GO TO CHECK-I-2.

IF ISC-FLAG IS EQUAL 70 TWO GO TO ENO-CI.

IF ISCHRONAL IS EQUAL TO ONE AND WEEK IS NOT LESS THAN
 70210
                                                                                                                                C98970
 70220
                                                                                                                                 C98970
 70230
                                                                                                                                C98970
 70232
                                              MIN-ISC-WEEK, THEN GO TO END-CI.
           CHECK-1-2.
 70240
                                                                                                                                 C98970
                   MOVE TWO TO ISCHRONAL.

IF WFEK IS LLSS THAN MIN-ISC-WEEK GO TO END-CI.

MOVE ZENO TO CNT.
 70250
 70260
                                                                                                                                 C98970
 10270
            CHECK-1-1.
70280
                                                                                                                                 C08970
                   ADD 1 70 CNT.

MOVE ISC-AC-.N LCNT1 TO ISC-TEMP.

IF SERIAL-NO IS LESS THAN ISC-TEMP GO TO CHECK-I-4.

IF SERIAL-NO IS EGUAL 70 ISC-TEMP GO TO CHECK-I-1A.

IF CNT IS LESS THAN NO-ISC-AC GO TO CHECK-I-1A.
                                                                                                                                C98970
70290
70300
70310
                                                                                                                                 C98970
                                                                                                                                 C98970
70320
70330
                                                                                                                                 C98970
                                                                                                                                C98970
70340
            CHECK-1-4.
                  MOVE TWO TO TSC-FLAG.
GO TO CHECK-1-3.
                                                                                                                                C98970
C98970
70350
70360
70370
            CHECK-I-1A.
                  MOVE ISC-AC-Y'K (CNT) 70 WEEK-TEMP.

IF WELK-TEMP IS EQUAL TO WEEK OR WEEK IS GREATER THAN
WELK-TEMP MOVE ONE TO ISCHRONAL.

MOVE ONE TO SC-FLAG.
                                                                                                                                 C98970
70380
                                                                                                                                 C98970
70390
70400
70410
                                                                                                                                 C98970
                                                                                                                                 C98970
            CHECK-1-3.
                                                                                                                                 C98970
           MOVE SERIAL-NO 70 PREV-TESTED-SN.
END-C1. EXIT.
NINE-FILL-2.
WRITE OUT-REC-2 FROM NINE.
AOD 1 TO KNT.
IF KNT IS LE:S THAN 90 GO TO NINE-FILL-2.
N-F-2. EXIT.
NINE-FILL-1.
WRITE OUT-REC-1 FROM NINE.
AOD 1 70 KNT.
IF KNT IS LESS THAN 90 GO TO NINE-FILL-1.
N-F-1. EXIT.
READ-SPEC-SG-WUC.
                  MOVE SERIAL-NO TO PREV-TESTED-SN.
70440
                                                                                                                                 C98970
70450
                                                                                                                                 C98970
70510
                                                                                                                                 C98970
                                                                                                                                 C98970
70520
 70530
                                                                                                                                 C98970
70540
                                                                                                                                 C98970
70550
                                                                                                                                 C98970
70000
                                                                                                                                 C98970
                                                                                                                                 C98970
70610
                                                                                                                                 C98970
70620
70630
                                                                                                                                 COAGTO
                                                                                                                                 C98970
70640
            READ-SPLC-SG-WUC.
```

```
MOVE ZERO TO NO-SPEC-SG-WUC.
                                                                                                          C98970
 85010
          REAU-SPEC.
HEAU 1H-FILE-15C INTO SPEC-SG-WUC-REC AT END 60 TO END-RSSW.
                                                                                                          C98970
C98970
 85020
 85030
                ADD 1 TO NO-PEC-SG-MUC.

MOVE SPEC-SG-MUC TO SPEC-SGMUC-LIST [NO-SPEC-SG-MUC].

MOVE SPEC-MEEK-A TO SPEC-MEEK-LIST [NO-SPEC-SG-MUC].
                                                                                                          C98970
C98970
C98970
 85040
 85050
 85060
                 GO TO READ-SPEC.
 85070
 #5090 END-KSSW. EXIT.

## PLACE COHOL SOURCE HEFORE THIS CARD

## OF PLACE COHOL SOURCE HEFORE THIS CARD

### OF PLACE COHOL SOURCE HEFORE THIS CARD

### UPUT 11 0202081
                                                                                                          C98970
                                                                                                       1440 CDS
    34
5700u236
                 331
    57000237
                 331
    57000243 324
57000244 331
    57002545
    58000776
    58000901
    59000002
    590000003
                 331
    59000005
                 331
331
    59000006
    59000010
    5900u015
                  331
                  331
    59000018
    59000019
    59000026
    59000054
                  324
    59000057
    5900u058
                  324
    59000059
                  324
                 331
331
    59000105
                 324
    59000108
59000110
    59000119
    59000141
59000143
                 324
   59000144
59000145
                 324
    59000147
    5900u151
                 324
    59000152
 03300
03310
 03320
 03330
 03600
 .END
             PLACE TFG DATA BEFORE THIS CARD

14 DU DIS, >(OLU, KEEP), VOL>SER>+F3.UNIT>T+F3

22 DD DIS>>(OLO, KEEP), VOL>SER>+F3.UNIT>T+F3

24 DU UISP>(OLO, KEEP), VOL>SER>+F7.UNIT>T+F7

RIN DU *SHACE>(TRK,(1,1))
 //TPR.TU14
 //TPR.TU22
//TPR.TU24
//TPR.TPR1N
 T/P DT01
T/P TU14
T/P TU22
                   1010080208
                   10100202020
       TU24
                   10100202020
             PLACE T/P CONTROL CARDS BEFORE THIS CARD
6.9.2 SORT FOR INSPECTION LENGTH INTERVALS
//C9897F EXEC
                     P9622N, W-060, T1ME>03, ACCT>035323007
                                                                                                       385
//CHG.SORTIN
                      00
                            DISPOR KEEP J. UNITO A+F5.2.DEFER J.
                                                                                                     CT22/23 1
```

6.9.3 CUMULATIVE DISTRIBUTION FOR INSPECTION LENGTH INTERVALS

```
//C9897E EXEC
                        P9655L.T.ME>04.ACCT>035323007
                        //CHG. TU12
                                                                                                                   CT12
CT12
//CHG. TU25
                        1+F8+J+F,,K+F8+L+F8,H4F8,N+F8+0+F8+P+F8+Q+F8+R+F8+S+F8]
DU 4+S^ACE>[CYL+[1+1]]
//
//CHG.INPUT
                                                                                                                     1440 CDS
                        COMBINE COMPILE
00000
                                                                                  G. WANG.
                                                                                                                        C98970
        REMARKS.

MAINTENALCE STUDY PROGRAM 38.
INSPECTION INTERVAL LENGTHS.
PREPARES CUMULATIVE DISTRIBUTION OF INSPECTION
INTERVAL LENGTHS.
AIRCRAFT SUB-SET, DATA-TYPE, WUC.
                                                                                                                        C98970
01050
                                                                                                                        C98970
01060
01070
                                                                                                                        C98970
UIUBO
01030
                                                                                                                        C98970
01110
          ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOUNCE-COMPUTER. IBM-360.
INPUT-OUTPUT SECTION.
FILE-CONTROL.
02000
U2U10
                                                                                                                        C98970
02020
                                                                                                                        C98970
                                                                                                                        C98970
02030
02100
02110
                 SELECT IN-FI! E
PESLRVE * ALTERNATE AREA.
02120
02130
                                                                                                                        C98970
C98970
                                                                  ASSIGN TO UT-S-TU12
          SELECT HIST-FILE

RESERVE ALTERNATE AREA.

SELECT CUT-OFF-FILE

RESERVE 1 ALTERNATE AREA.

DATA DIVISION.
02140
                                                                  ASSIGN TO UT-S-TU25
02150
                                                                                                                        C98970
                                                                 ASSIGN TO DA-S-DT03
                                                                                                                        C98970
09000
09010
                                                                                                                        C98970
                                                                                                                        C98970
10000
           FILE SECTION.
                                                                                                                         C98970
11100
                                                                                                                        C98970
                 RECORDING MODE 15 F
BLOCK CONTAINS 90 PECORDS
RECORD CONTAINS 20
                                                                                                                        C98970
11130
11140
                                                                                                                        C98970
                                                                                                                        C98970
                                                                CHARACTERS
                  LABEL RECORDS ARE OMITTED DATA RECORDS ARE IN-REC.
11150
                                                                                                                        C98970
                                                                                                                        C98970
11160
11170
           01
                  IN-REC SYNC.
                                                                                                                        C98970
                                                               PICTURE XC53.
PICTURE XC43.
PICTURE S9(63.
PICTURE S99999V$.
11180
11182
                  02 WUC
02 FILLER
                                                                                                                        C98970
                                                                                                                        C98970
                       OHS OHS-1 RECEFINES OBS
                                                                                                                        C98970
C98970
11183
11184
                  02
                        FILLER
                                                               PICTURE A.
11185
                                                               PICTURE X.
PICTURE X.
PICTURE X.
11186
                        ISCHRONAL-NEW
                                                                                                                        C98970
                                                                                                                        C98970
11187
                        FILLER
                  02
11188
                        DATA-TYPE-NEW
                  02 FILLER
HIST-FILE
11189
                                                               Ptc. X.
                                                                                                                        C98970
12100
           FD
                                                                                                                        C98970
                  MECUPDING MODE 1S F
BLOCK CUNTAINS 15 RECORDS
RECORD CONTAINS 130
LABEL RECORDS ARE OMITTED
DATA RECORDS ARE HIST-REC.
12120
                                                                                                                        C98970
12130
                                                                                                                        C98970
                                                                 - 4-17 AS
12150
12160
                                                                                                                        C98970
                  HIST-REC SYN .
02 FILLER
CUT-OFF-FILE
12170
           01
                                                                                                                        C98970
                                                               FRETE
12180
                                                                            45 130 7.
                                                                                                                        C98970
29000
          FD CUT-OFF-FILE
RECUPUING MOLE IS F
BLOCK CUNTAINS 80
LAREL RECORDS ARE STANDARD
DATA RECORDS ARE STANDARD
CUT-OFF-REC TYNC.
05 NI-CUT-OFF
05 FILLEN
WORKING-STORAGE TECTION.
77 KNI SYNC PICTURE S9[5].
                                                                                                                        C98970
24010
                                                                                                                        C98970
29020
                                                                                                                        C98970
29030
                                                                CHARACTERS
29040
29050
                                                                                                                        C98970
29060
29070
                                                               PICTURE 9053.
PICTURE 9053.
PICTURE X0703.
                                                                                                                        C98970
                                                                                                                        C98970
29080
291190
                                                                                                                        C98970
30000
                                                                                                                        C98970
                 FILCER SYNC.

PICTURE S9(5).

FILCER SYNC.

PICTURE SYCURE OCCURS 1000 TIMES PICTURE S9(5)

COMPUTATIONAL.

A PICTURE S9(5) COMPUTATIONAL.
30010
30020
                                                                                                                        C98970
                                                                                                                        C98970
30030
                                                                                                                        C98970
30040
                                                                                                                        C98970
30050
                                                               PICTURE 9999 VALUE ZERO.
PICTURE X VALUE 121.
PICTURE X VALUE 111.
30060
          01
                 NO-OF-HISTS
TWO SYIIC
30070
                                                                                                                        C98970
                 ONE SYNC
CNT SYNC
CUR-WUC-T SY IC.
30080
                                                                                                                        C98970
          01
30090
                                                               PICTURE S9[5] COMPUTATIONAL.
                                                                                                                        C98970
30100
                                                                                                                        C98970
                                                               PICTURE XC5] VALUE 1 WUC>1.
PICTURE XC5].
PICTURE X.
30110
                  02 FILLER
02 CUR-WUC
                                                                                                                        C98970
                                                                                                                        C98970
                 02 CUN-WUL
ISCHRONAL STIC
DATA-TYPE TYNC
MINUS-ONE COMPUTATIONAL
REPORT-ID SYNC.
30170
                                                                                                                        C98970
30180
                                                               PICTURE X
                                                                                                                        C98970
30190
                                                               PICTURE S999 VALUE -1 SYNC.
32000
32010
           01
                                                                                                                        C98970
                                                               PICTURE X[50] VALUE
                                                                                                                        C98970
                  02 FILLER
                       159807860 TF7919-02 142-8 1 1/2
FILLER PICTURE X(50) VALUE SPACE.
FILLER PICTURE X(50) VALUE
32020
                                                                                                                        C98970
32030
                                                                                                                        C98970
```

```
32050
               **I.

MEAN COMPUTATIONAL SYNC PICTURE $917399.

VARIANCE COMPUTATIONAL SYNC PICTURE $917399.
                                                                                                      C98970
                                                                                                       C98970
C98970
46000
          01
 46010
 46020
          01
                TEMP-LUMP
                                                      PICTURE 590 7 JV99
                                                                                                       C98970
 46100
               MEAN-VAHIANCE-LINE SYNC.
          01
                                                                                                       C98970
 46110
                    FILLER
                                                      PICTURE XESO3 VALUE
                                                                                                       C98970
 46120
                          :5
                                                                                                      C98970
                                                      PICTURE X[19] VALUE
               02 FILLER
                                                                                                       C98970
                                              MEAN >:
                                                                                                      C98970
C98970
 46140
                          :
                                                      PICTURE ZZZ9.9.
PICTURE X[30] VALUE
VARIANCE >1.
 46150
 46160
               02
                    FILLER
                                                                                                       C98970
46170
                                                                                                       C98970
                    VARIANCE-RPT
                                                      PICTURE ZZZZZZ9.9.
PICTURE X[16] VALUE
46180
               02 FILLER
                                                                                                       C98970
 46190
                                                                                                       C98970
                                                     PICTURE S9999V99 VALUE -9999.9.
PICTURE S9999V99 VALUE <9999.9.
PICTURE S915J VALUE ZERO.
PICTURE 9 VALUE ZERO.
PICTURE VALUE ZERO.
PICTURE X VALUE III.
               HIST-VALUE-MAX SYNC
                                                                                                      C98970
C98970
47000
               HIST-VALUE-MIN SYNC
HIST-NO-OF-OLS SYNC
 47010
47020
                                                                                                       C98970
 47030
               HIST-NO-OF-INTERVALS SYNC
                                                                                                      C98970
               HIST-INPUT-VMAX-VMIN SYNC HIST-UIST SYNC
47040
                                                                                                       C98970
47050
                                                                                                      C98970
 47060
          01
               HIST-INUEX SYNC COMPUTATIONAL
                                                                                                      C98970
47070
                                                      PICTURE S999
                                                                          VALUE ZERO.
                                                                                                       C98970
47UB0
          01 HIST-THUEX-2 SYNC COMPUTATIONAL
                                                                                                      C98970
47090
                                                      PICTURE S999
                                                                          VALUE ZERO.
 47100
               HIST-TEMP SYNC
                                                      PICTURE S9999999 VALUE ZERO.
PICTURE S999V99 VALUE ZERO
                                                                                                       C98970
               HIST-INTERVAL-SIZE SYNC
                                                                                                       C98970
 47120
               COMPUTATIONAL.
                                                                                                       C98970
 47150
                                                      PICTURE X
                                                                           VALUE :0:.
                                                                                                       C98970
               HIST-SCALE-VALUE SYNC COMPUTATIONAL
PICTURE S999 VALUE (I.
HIST-PERCENT SYNC PICTURE S999V99 COMPUTATIONAL.
HIST-LUM SYNC PICTURE S999V99 COMPUTATIONAL.
47160
47170
                                                                                                       C98970
                                                                                                       C98970
 47180
 47190
                                                                                                      C98970
               HIST-LINE SY IC COMPUTATIONAL
                                                                                                       C98970
 47200
                                                     PICTURE S999 VALUE ZERO
PICTURE S999 VALUE <75.
PICTURE S999.
PICTURE X[10] VALUE
47210
                                                                                                      C98970
 47220
               HIST-PAUE-FLAG SYNC
                                                                                                       C98970
47230
47300
               HIST-LINE-CNI SYNC
                                                                                                      C98970
               HIST-ERK-I SINC
47510
                                        :ERROR NO O:.
47320
          01
               HIST-LRK-3 SYNC.
                                                                                                      C98970
               02 FILLER
02 HIST-ERR 2
                                                      PICTURE XE5] VALUE 185 > PICTURE S9553 VALUE ZERO. PICTURE XE103 VALUE
47330
                                                                          VALUE :85 > 1.
47340
                                                                                                      C98970
47350
               HIST-EHH-4 STNC
         01
                                                                                                      C98970
47560
                                        : ERROR
                                                   MAX:
47370
               HIST-ERK-5 S.NC
                                                     PICTURE XE103 VALUE
          01
                                                                                                      C98970
                                        :-MIN BAD. :.
.UE SYNC PICTURE S999 COMPUTATIONAL.
47380
                                                                                                      C98970
47390
         0.1
               HIST-OUT-RANGE-VALUE SYNC
47500
               FILLER SYNC.
          01
                                                                                                      C98970
47510
               02 FILLER O' CURS 200 TIMES.
                                                                                                      C98970
               03 HIST-TABLE
03 HIST-UPPER-LIMIT
05 HIST-TABLE-SCALED
HIST-NEW-PAG: SYNC.
                                                     PICTURE S953 COMPUTATIONAL.
PICTURE S9999V99 COMPUTATIONAL.
47530
                                                                                                      C98970
                                                                                                      C98970
47550
                                                      PICTURE S999V99 COMPUTATIONAL.
                                                                                                       C98970
47560
         01
                                                                                                      C98970
                                                      PICTURE X VALUE :1:.
PICTURE XC122] VALUE SPACE.
PICTURE XC5] VALUE :PAGE :.
               02 FILLER
47570
47580
                                                                                                      C98970
47582
                    FILLER
47584
               0.2
                    HIST-PAG"-NO
                                                      PICTURE 9.
                                                                                                      C98970
47590
                    FILLER
                                                      PICTURE X
                                                                        VALUE :#:.
                                                                                                      C98970
               HIST-TITLE SINC.
47600
         01
                                                                                                      C98970
47610
               02
                                                      PICTURE XE33 VALUE :S :.
                                                                                                      C98970
               02 HIST-TITE-1.
47620
                                                                                                      C98970
                                                     PICTURE X[10] VALUE SPACE.
47621
                                                                                                      C98970
47630
                    HIST-TITLE-2.
               02
                                                                                                      C98970
                   03 FILLER
HIST-TITLE-5
HIST-TITLE-4
                                                     PICTURE XCIOJ VALUE SPACE.
PICTURE XCIOJ VALUE SPACE.
PICTURE XCIOJ VALUE SPACE.
PICTURE XC24J VALUE
47631
                                                                                                      C98970
47640
                                                                                                      C98970
47650
                                                                                                      C98970
47660
                   FILLER PICTURE XE241
: NO OF OBSERVATIONS >: HIST-NO-OF-OBS-RPT PICTURE ZZZZ9
               0.2
                                                                                                      C98970
47670
                                                                                                      C98970
               02
47680
                                                                                                      C98970
47690
                    FILLER
                                                      PICTURE XE133 VALUE
                                                                                                      C98970
47700
                          : VILUE MAX > 1.
                                                                                                      C98970
C98970
47710
                    HIST-VAL'IE-MAX-RPT
                                                     PICTURE ----- F.
PICTURE X[13] VALUE
47720
               02
                    FILLER
                                                                                                      C98970
                    : V.LUE MIN > 1.
HIST-VAL'E-MIN-RPT
                                                                                                      C98970
C98970
                                                     PICTURE -----9.
PICTURE X[18] VALUE
47740
               02 FILLER
                                                                                                      C98970
C98970
                                                       #: .
              HIST-UOT-LINE SYNC.
                                                                                                      C98970
47900
         01
47910
                                                     PICTURE XESO3 VALUE
47920
                                                                                                      C98970
C98970
                          11-
               02 FILLER
                                                      PICTURE XE 80 3 VALUE
47930
                                                                                                      C98970
               47940 -
47950
        01
               HIST-LABEL SYNC.
                                                                                                      C98970
                                   PICTURE X[50] VALUE
MIDPNT PCNT CUM FRE0 1...5...10...15...20.1.
PICTURE X[80] VALUE
47960
               02 FILLER
                                                                                                      C98970
47970
                                                                                                      C98970
               02 FILLER
47974
               125...30...35...40...45...50...55...60...65...70...75...80...
47980 -
                                                                                                      C98970
```

```
48000 OI HIST-LINE-OU" SYNC.
                                                                                                                                                   C98970
                     02 FILLER
02 HIS:-LINE-RPT
02 FILLER
48010
                                                                             PICTURE X VALUE 1/1.
                                                                                                                                                   C98970
                                                                             PICTURE ZZ9.
PICTURE X VALUE SPACE.
48020
                                                                                                                                                   C98970
48030
                                                                                                                                                   C98970
                                                                             PICTURE YALUE SPACE.
PICTURE ZZ9.9.
PICTURE ZZ9.9.
PICTURE ZZ9.9.
PICTURE ZZ229.
                      02 HIST-MID- POINT-RPT
02 HIST-PERCENT-RPT
02 FILLER
48040
48060
                                                                                                                                                   C98970
                                                                                                                                                   C98970
48070
                     02 HIST-CUM RPT
02 HIST-FRED-RPT
MAHAD
                                                                                                                                                   C08970
48100
                                                                                                                                                   C98970
                     02 FILLER PICTURE OCCURS 100 TIMES
PICTURE X.
48110
                                                                             PICTURE X VALUE SPACE.
                                                                                                                                                   C98970
4812D
                                                                                                                                                   C98970
48130
                                                                             PICTURE X VALUE 141.
                     02 FILLER
4814D
                                                                                                                                                   CQAQ70
48150
                     HIST-UUI-HANGE-REC SYNC.
              10
                     PICTURE XC351 VALUE

1/ NUMBER OF OUT OF RANGE VALUES >1.

1/ NUMBER OF OUT OF RANGE VALUES >1.

1/ NUMBER OF OUT OF RANGE VALUES >1.

1/ PICTURE XC911 VALUE SPACE.

1/ PICTURE X VALUE 141.
48160
                                                                                                                                                   C98970
48170
                                                                                                                                                   C98970
48180
4A19D
                                                                                                                                                   COROZO
48191
                                                                                                                                                   C98970
48200
             10
                     HIST-SCALE-LINE SYNC.
                                                                                                                                                   C98970
                     DE FILLER
                                           PICTURE XL2/J VALUE
SCALING FACTOR > 1.
ALE-RPT PICTURE Z29.
PICTURE XL0993 VALUE SPACE.
PICTURE X VALUE Is1.
                                                                             PICTURE XC271 VALUE
48210
                                                                                                                                                   CGAGTO
48220
                                                                                                                                                   C98970
                     02 HISI-SCALE-RPT
48230
                                                                                                                                                   C98970
                     02 FILLER
48240
                                                                                                                                                   C98970
48250
48500
             DI
                     FILLER SYNC.
                                                                                                                                                   COAOTO
                     02 HIST-VAL'E OCCURS 1000 TIMES
48310
                                                                                                                                                   C98970
48520
                                                                             PICTURE S9999V9 COMPUTATIONAL.
             PROLEDURE DIVISION.
20000
                     LEDINE DIVISION.

OPEN INPUT CLT-OFF-FILE.

READ CUI-OFF-FILE AT END GO TO CLOSE-FILES.

CLOSE CUT-OFF-FILE WITH LOCK.

OPEN INPUT IN-FILE.

MOVE 1000 TO KNI.

PERFORM RESET-TABLE THRU ENO-RSI-TABLE.

REAO IN-FILE, AT ENO GO TO CLOSE-FILES.

WKITE HIST-REC FROM REPORT-ID.
                                                                                                                                                   COROZO
50001
                                                                                                                                                   C98970
50002
50005
                                                                                                                                                   COAGTO
50010
                                                                                                                                                   C98970
50020
                                                                                                                                                   C98970
50030
                                                                                                                                                   C98970
                                                                                                                                                    C98970
50040
50050
                                                                                                                                                   C98970
50060
             PARA-I
50100
                                                                                                                                                   C98970
50110
                     MOVL 1 10 HIST-NO-OF-OBS.
                                                                                                                                                   C98970
                     MOVE DUC TO CUM-WUC.

MOVE DATA-TYPE-NEW TO DATA-TYPE.

MOVE ISCHRONAL-NEW TO ISCHRONAL.

IF OATA-TYPE IS EQUAL TO ONE GO TO WEEKS-DATA ELSE 60 TO

FL"-OATA.
50120
                                                                                                                                                   C98970
50140
                                                                                                                                                   C98970
                                                                                                                                                    C98970
50160
50170
                                                                                                                                                   C08970
                                                                                                                                                   C98970
50200
                                                                                                                                                   C98970
                     READ IN-FILE, AT ENO GO TO CLOSE-FILES.

IF DATA-TYPE-NEW IS EQUAL TO 10: GO TO CLOSE-FILES.

IF WUC IS NOT EQUAL TO CUR-WUC GO TO PARA-2.

ADD I TO HIST-NO-OF-OBS.

IF DATA-TYPE IS EQUAL TO ONE GO TO WEEKS-DATA ELSE GO TO FLT-OATA.
50210
                                                                                                                                                   C98970
50230
                                                                                                                                                   C98970
50250
                                                                                                                                                   C98970
50260
50270
                                                                                                                                                   C98970
50300
             PARA-2.
             PERFORM SET-"ISTOG THRU END-SH.
PERFORM RESET-TABLE THRU ENO-RST-TABLE.
GO TO PARA-1.
RESET-TABLE.'
MOVE ZERO TO CNT.
50310
                                                                                                                                                   C98970
50320
                                                                                                                                                   C98970
                                                                                                                                                   C98970
50330
50400
                                                                                                                                                   COAGTO
                                                                                                                                                   C98970
50410
              RST.
                                                                                                                                                    C98970
                      ADD 1 TO CHT.
50430
             ADD 1 TO CNT.

MOVE MINUS-ONE TO HIST-VALUE [CNT].

MOVE ZERO TO FREQ-HIST-VALUE [CNT].

IF (NT 15 LES; THAN KNT GO TO RST.

MOVE ZERO TO (NT.

ENO-RST-TABLE. EYIT.

SET_USTOC.
                                                                                                                                                   C98970
50440
                                                                                                                                                   C98970
                                                                                                                                                   C98970
50445
50450
                                                                                                                                                   C98970
50460
                                                                                                                                                   C98970
                                                                                                                                                   C98970
              SET-HISTOG.
                     -HISTOG.

IF ISCHRONAL IS EQUAL TO ONE AND HIST-NO-OF-OBS IS NOT GREATER TH/N ISO-CUT-OFF GO TO END-SH.

IF ISCHRONAL IS EQUAL TO TWO AND HIST-NO-OF-OBS IS NOT GREATER THAN NI-CUT-OFF GO TO END-SH.

IF ISCHRONAL IS EQUAL TO ONE MOVE : ISO : TO HIST-TITLE-4, ELSE MOVE : NON-ISO : TO HIST-TITLE-4.

IF UAIA-TYPE IS EQUAL TO ONE MOVE : WEEKS I TO HIST-TITLE-5, ELSE MOVE : FLT-HOURSI TO HIST-TITLE-3.

MOVE CUR-WICC-T TO HIST-TITLE-1.

PERFORM WRITF-HISTOGRAM THRU ENO-HIST.

ADD I TO NO-CF-HISTS.
50510
                                                                                                                                                   C98970
50512
                                                                                                                                                   C98970
50514
50516
50518
                                                                                                                                                    C98970
                                                                                                                                                   C98970
50520
                                                                                                                                                    C98970
50540
50550
                                                                                                                                                   C98970
50560
                                                                                                                                                   C98970
                                                                                                                                                    C98970
50590
             FERFORM WRITE-HISTOGRA
IF HIST-FLAG IS EQ
ADD I TO NO-CF-HISTS.
END-SH. EXII.
WELKS-DATA.
MOVE ZERO TO CNT.
                                                                                                                                                   C98970
C98970
50510
                                                                                                                                                    C98970
51 000
51010
             WEEK-A.

AOD I TO CNT

IF OBS IS EQUAL TO HIST-VALUE (CNT) GO TO WEEK-C.

IF FREG-HIST-VALUE CCNT) IS EQUAL TO ZERO GO TO WEEK-8.

IF CNT IS LEGS THAN 1000 GO TO WEEK-A.
51020
                                                                                                                                                   C98970
                                                                                                                                                   C98970
51030
51040
                                                                                                                                                   C98970
51050
                                                                                                                                                   C98970
51060
```

```
DISPLAY : MORE THAN 1000 FREQUENCY OCCURENCES : UPON CONSOLE.
                                                                                                                                      C98970
51070
                    60 TO CF1.
51080
51090
            WEFK-B.
                                                                                                                                       C98970
                   MOVE OHS TO HIST-VALUE CONT!.
If and is greater than knt then move ont to knt.
51100
                                                                                                                                       C98970
                                                                                                                                       C98970
                                                                                                                                       C98970
51120
             WEEK-C.
                    ADD 1 TO FRE :-HIST-VALUE [CNT].
GO TO READ1.
51130
51140
                                                                                                                                       C98970
            FLT-DATA.
                                                                                                                                       C98970
52000
52010
                    MOVE ZERO TO CHT.
                                                                                                                                       C98970
52020
            FLT-A
                                                                                                                                       C98970
                    ADD 1 TO CHT
52030
                   ADU 1 TO CONT.

IF 085-1 IS EQUAL TO HIST-VALUE [CNT] GO TO FLT-C.

IF FREN-HIST VALUE [CNT] IS EQUAL TO ZERO GO TO FLT-B.

IF CNT IS LESS THAN 1000 GO TO FLT-A.

DISPLAY: MORE THAN 1000 FREQUENCY OCCURENCES I UPON CONSOLE.
52040
                                                                                                                                       C98970
52050
                                                                                                                                       C98970
52060
                                                                                                                                       C98970
                                                                                                                                      C98970
52070
52080
                    GO 10 CF1.
52090
            FLT-B.
                                                                                                                                       C98970
                   MOVE ORS-1 19 HIST-VALUE CONT).
IF ONT IS GREATER THAN KNT THEN MOVE ONT TO KNT.
                                                                                                                                       C98970
52100
52110
                                                                                                                                       C98970
52120
52130
            FLT-C.
                                                                                                                                       C98970
            ADD 1 TO FREN-HIST-VALUE [CNT],
GO TO READ1.
CLOSE-FILES.
52140
                                                                                                                                       C98970
                                                                                                                                       C98970
52200
                    PERFORM SET- ISTOG THRU END-SH.
                                                                                                                                       C98970
52205
52207
52210
                                                                                                                                       C98970
                    CLOSE IN-FILT, HIST-FILE.
                                                                                                                                       COROTO
                    IF HIST-FLAG IS EQUAL TO III DISPLAY I HIST ERROR I UPON
52211
                                                                                                                                       C98970
                    CONSOLE.
DISPLAY : NC OF HISTOGRAMS > I NO-OF-HISTS UPON CONSOLE.
DISPLAY : EO : C9897 : UPON CONSOLE.
52212
                                                                                                                                        C98970
52215
                                                                                                                                       C98970
                                                                                                                                        C98970
                    GOPACK.
52230
                                                                                                                                       COROZO
            COMPUTE-MEAN-VAR.ANCE.
MOVL ZERO TO CNT.
MOVL ZERO TO MEAN.
95000
                                                                                                                                       C98970
95010
                                                                                                                                        C98970
95020
                                                                                                                                       C98970
95030
95040
            CMV-1.
                                                                                                                                       C98970
                                                                                                                                       C98970
                    COMPUTE TEMP-COMP > HIST-VALUE [CNT] + FREO-HIST-VALUE [CNT].

ADD TEMP-COMP TO MEAN,

IF CNT IS LESS THAN KNT GO TO CMV-1,

DIVIDE HIST- 10-UF-OBS INTO MEAN.
95050
                                                                                                                                      C98970
95060
                                                                                                                                       C98970
95070
                                                                                                                                       C98970
95 UAO
                                                                                                                                       C98970
                    MOVE ZERO TO CATA
95090
                                                                                                                                       C98970
95100
                                                                                                                                       C98970
95105
                    IF HIST-NO-CF-OUS IS LESS THAN 2 GO TO END-CMY.
                                                                                                                                       C98970
            CMV-2.
                                                                                                                                       C98970
95110
                    .2.
ADD 1 TO CNT,
COMPUTE TEMP-COMP > [[HIST-VALUE [CNT] - MEAN] ** 2] *
FREQ-HIST-VALUE [CNT].
95130
                                                                                                                                       C98970
95140
                                                                                                                                       C98970
                   FREQ-HIST-VALUE (CNT).

ADD TEMP-COMP TO VARIANCE.

IF (NT 15 LESS HAN KNT GO TO CMV-2.

COMPUTE VARIANCE > VARIANCE / [HIST-NO-OF-OBS = 1].

MOVE MEAN TO MEAN-RPT.

WALLANCE TO VARIANCE-RPT.

WRITE HIST-REC FROM MEAN-VARIANCE-LINE.

CMV. EX.T.
95150
95160
                                                                                                                                       C98970
95170
                                                                                                                                       C98970
95180
                                                                                                                                       C98970
95190
                                                                                                                                       C98970
95200
           WRITE HIST-REC FROM
END-CMV. EX.T.

WRITE-HISTOGRAM.

MOVL :0: TO HIST-FLAG.

MOVL ZERO TO HIST-OUT-RANGE-VALUE.

MOVE ZCRO TO HIST-PAGE-NO.

MOVE -9999.9 TO HIST-VALUE-MAX.

MOVI. <9999.9 TO HIST-VALUE-MIN.

MOVE ZERO TO HIST-INDEX.
                                                                                                                                       C98970
45290
                                                                                                                                       C98970
97000
                                                                                                                                       C98970
97080
                                                                                                                                       C98970
97090
                                                                                                                                       C98970
97100
                                                                                                                                       C98970
97140
97150
                                                                                                                                       C98970
97200
                                                                                                                                       C98970
                  MOVE ZERO ...

MOVE ZERO ...

ADD I TO HIST-INDEX.

MOVE HIST-VALUE CHIST-INDEX TO HIST-TEMP.

IF HIST-TEMP IS GREATER THAN HIST-VALUE-MAX THEN MOVE

H'ST-TEMP TO HIST-VALUE-MIN THEN MOVE

H.ST-TEMP TO HIST-VALUE-MIN.

IF HIST-INDE: IS LESS THAN KNT

HIST-FIND-VMAX-VMIN.

**C FORMAL TO ONE COMPUTE HIST-NO-OF-INTERN
97210
97220
                                                                                                                                       C98970
                                                                                                                                       C98970
97230
                                                                                                                                       C98970
                                                                                                                                       C98970
97250
97260
                                                                                                                                       C98970
97270
                                                                                                                                       C98970
97280
97290
                                                                                                                                       CORSTO
                    IF WATA-TYPE IS EQUAL TO ONE COMPUTE HIST-NO-OF-INTERVALS >
47292
                                                                                                                                       C98970
                    HIST-VALUE-MAX < 4.

IF DATA-TYPE IS EQUAL TO TWO COMPUTE HIST-NO-OF-INTERVALS >
97294
                                                                                                                                       C98970
97296
                                                                                                                                       C98970
                           HIST-VALUE-MAX / 8 < 4.
97298
                                                                                                                                       C98970
97300
97301
            HIST-PRINT-TITLE.

IF HIST-NO-C:-INTERVALS IS LESS THAN 50 MOVE 80 TO
                                                                                                                                       C98970
                                                                                                                                       C98970
                   IF HIST-NO-C:-INTERVALS IS LESS THAN 50 MOVE MIST-NO-C:-INTERVALS.

ADD 1 TO HIST-PAGE-NO.

MOVE 5 TO HIST-LINE-CN:.

MOVE HIST-R:-C FROM HIST-NEW-PAGE.

MOVE HIST-NO-OF-OUS TO HIST-NO-OF-OUS-RPT.

MOVE HIST-VALUE-MAX TO HIST-VALUE-MAX-RPT.

MOVE HIST-VALUE-MIN TO HIST-VALUE-MIN-RPT.

WRITE HIST-R:-C FROM HIST-TITLE.

PERFORM COMPUTE-MEAN-VARIANCE THRU END-CMV.
97302
                                                                                                                                       C98970
97304
                                                                                                                                       COROZO
                                                                                                                                       C98970
97310
97320
                                                                                                                                       C98970
97330
97340
                                                                                                                                       C98970
                                                                                                                                       C98970
97355
                                                                                                                                       C98970
```

```
WHITE HIST-REC FROM HIST-DOT-LINE.
97360
                                                                                                                                                                                                   C98970
                             WRITE HIST-REC FROM HIST-LABEL. WRITE HIST-REC FROM HIST-DOT-LINE.
97570
                                                                                                                                                                                                    C98970
97380
                                                                                                                                                                                                    C98970
 97390
                                                                                                                                                                                                    C98970
                             IF HIST-VALUE-MAX IS LESS THAN HIST-VALUE-MIN THEN GO TO HIST-ERROR-2.

IF HIST-NO-O"-INTERVALS IS GREATER THAN 200 THEN MOVE 200 TO HIST-NO-OF-INTERVALS.
 97410
                                                                                                                                                                                                    C98970
 97420
                                                                                                                                                                                                    C98970
97430
97440
                                                                                                                                                                                                    C98970
                                                                                                                                                                                                    C98970
97441
                             MOVE ZERO TO HIST-INDEX.
                                                                                                                                                                                                    C98970
                 MOVE LUNCH
HIST-RST.

ADD I TO HIST-INDEX,
MOVE ZERO TO HIST-TABLE [HIST-INDEX],
IF HIST-INDE: 15 LESS THAN HIST-NO-OF-INTERVALS
THEN GO TO HIST-RST.

FOUNDLY TO ONE MOVE I.O TO HIST-IN
97442
                                                                                                                                                                                                    C98970
97443
97444
                                                                                                                                                                                                    C98970
 97445
                                                                                                                                                                                                    C98970
97446
                             IF DATA-TYPE IS EQUAL TO ONE MOVE 1.0 TO HIST-INTERVAL-SIZE,

ELSE MOVE 8.0 TO HIST-INTERVAL-SIZE,

NOTE COMPUTE UPPER LIMIT FOR EACH INTERVAL.
 97450
                                                                                                                                                                                                    C98970
97460
                                                                                                                                                                                                    C98970
C98970
 97510
                             MOVE ZEHO TO HIST-INDEX.
MOVE ZEHO TO HIST-TEMP.
                                                                                                                                                                                                     C98970
                  MOVE ZEHO
HIST-INC-INTERVAL
97520
                                                                                                                                                                                                    COROTO
97530
                                                                                                                                                                                                    C98970
                             ADD I TO HIS -INDEX.

ADD HISI-INTSRVAL-SIZE TO HIST-TEMP.

MOVE HIST-TEMP 10 HIST-UPPER-LIMIT [HIST-INDEX].

IF HIST-INDE IS LESS THAN HIST-NO-OF-INTERVALS THEN

GO TO HIST-INC-INTERVAL.
97540
                                                                                                                                                                                                     C98970
97550
                                                                                                                                                                                                    C98970
                                                                                                                                                                                                    C98970
97570
                                                                                                                                                                                                    C98970
 97580
                                                                                                                                                                                                    C98970
                             NOTE PEACE OCCURANCE INTO APPROPRIATE CHANNEL. MOVE ZERO TO HIST-INDEX-2.
97600
                                                                                                                                                                                                    C98970
97610
                                                                                                                                                                                                    C98970
                   HIST-OCCURAGE.
97b20
                             ADD I TO HIST-INDEX-2.
MOVE HIST-VALUE [HIST-INDEX-2] TO HIST-TEMP.
97630
                                                                                                                                                                                                   C98970
97640
                                                                                                                                                                                                    C98970
97650
                             MOVE ZERO TO HIST-INDEX.
                                                                                                                                                                                                    C98970
                           TOTAL THE PROPERTY OF THE PROP
97060
                   HIST-INIEHVAL.
                                                                                                                                                                                                    C98970
97670
97675
                                                                                                                                                                                                   C98970
C98970
97680
                                                                                                                                                                                                    C98970
97090
                                                                                                                                                                                                    C98970
97700
97710
                                                                                                                                                                                                   C98970
C98970
97720
                                                                                                                                                                                                    C98970
97730
                             GO TO HIST-NO-AUD.
                                                                                                                                                                                                   C98970
97740
                  HIST-ADD-TABLE.

AND A TO DIS -TABLE THIST-INDEX).
                                                                                                                                                                                                    C98970
                                                                                                                                                                                                   COROFT
97010
                 ntene
114 teae
                                                                                                                                    HI TH HTHT-REPURANCE.
                                                                                                                                                                                                   698970
97810
                                                                                                                                                                                                   C98970
                             MOVE I TO HIST-INDEX.
97820
                                                                                                                                                                                                   C98970
97830
                  HIST-SCALE.
                                                                                                                                                                                                    C98970
                           T-SCALE.

ADD I TO HIS*-INDEX.

IF HIST-TABLE (HIST-INDEX) IS GREATER THAN HIST-TEMP THEN

MOVE HIS,-TABLE (HIST-INDEX) TO HIST-TEMP.

IF HIST-INDE: IS LESS THAN HIST-MOOFF-INTERVALS THEN 60 TO

HIST-SCALE.
97840
                                                                                                                                                                                                   C98970
97850
                                                                                                                                                                                                   C98970
97860
                                                                                                                                                                                                   C98970
                IHAN HIST-NO-OF-INTERVALS

HIST-SCALE.

COMPUTE HIST-SCALE-VALUE > (HIST-TEMP < 99] / 100.

IF HIST-SCAL. -VALUE IS LESS THAN 1 MOVE 1 TO

HIST-SCAL'-VALUE.

MOVE ZENO TO HIST-INDEX.

HIST-SCALED-VALUES.

ADD 1 TO HIST-INDEX.
97470
                                                                                                                                                                                                   C98970
97880
97890
                                                                                                                                                                                                   C98970
97895
                                                                                                                                                                                                   C98970
97896
                                                                                                                                                                                                   C98970
                                                                                                                                                                                                   C98970
97900
97910
                            ADD 1 TO HIS: -INDEX.
COMPUTE HIST-TABLE-SCALED [HIST-INDEX] >
97920
                                                                                                                                                                                                   C98970
97930
                                                                                                                                                                                                   C98970
97940
                                                 HIST- TABLE [HIST-INDEX] / HIST-SCALE-VALUE.
                                                                                                                                                                                                    C98970
97950
                             IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS THEN OO TO
                                                                                                                                                                                                   C98970
C98970
                                                                                             HIST-SCALED-VALUES.
97960
 98000
                             NOTE PREPARE OUTPUT DATA.
                                                                                                                                                                                                    C98970
                             DIVINE & INT' HIST-INTERVAL-SIZE. MOVE ZERO TO HIST-CUM.
                                                                                                                                                                                                    C98970
98010
                                                                                                                                                                                                    C98970
98020
90030
                             MOVE ZERO TO HIST-LINE.
                                                                                                                                                                                                    C98970
98040
                  HIST-PREPARL.
                                                                                                                                                                                                    C98970
98050
                             ADD I TO HIST-LINE.
                                                                                                                                                                                                    C98970
                            ADD I TO HIST-LINE,

MOVE HIST-LINE IN HIST-LINE-RPT.

COMPUTE HIST-TEMP > HIST-UPPER-LIMIT (HIST-LINE)

- HIST-INTERVAL-SIZE.

MOVE HIST-TEMP TO HIST-MID-POINT-RPT.

COMPUTE HIST-PERCENT > HIST-TABLE (HIST-LINE) * 100

/ HIST-NO-OF-OBS.

MOVE HIST-PERCENT TO HIST-PERCENT-RPT.

ADD HIST-PERCENT TO HIST-CUM-RPT.

MOVE HIST-CUM TO HIST-CUM-RPT.

MOVE HIST-TABLE (HIST-LINE) TO HIST-FREO-RPT.
98060
                                                                                                                                                                                                   C98970
                                                                                                                                                                                                   C98970
98070
98080
                                                                                                                                                                                                    C98970
98090
                                                                                                                                                                                                   C98970
GRIIO
                                                                                                                                                                                                    C98970
                                                                                                                                                                                                    C98970
98120
98130
                                                                                                                                                                                                    C98970
98140
                                                                                                                                                                                                    C98970
                                                                                                                                                                                                    C98970
98150
98160
98170
                             MOVE ZENO TO HIST-INDEX.

IF HIST-DIST IS NOT EQUAL TO :n: GO TO HIST-CUM-1.
                                                                                                                                                                                                    C98970
                                                                                                                                                                                                   C98970
                             COMPUTE HIST-INDEX-2 > HIST-TABLE-SCALED (HIST-LINE) < 0.8.
IF HIST-INDE -2 IS EQUAL TO ZERO GO TO HIST-PREP-SPACE.
98180
98190
                                                                                                                                                                                                    C98970
                   HIST-PREP-DIST.
                             ADD 1 TO HIST-INDEX.

MOVE :4: TO LIST-POINT [HIST-INDEX].

IF HIST-INDEX IS LESS THAN HIST-INDEX+2 GO TO HIST-PREP-DIST.
98210
                                                                                                                                                                                                   C98970
98220
                                                                                                                                                                                                   C98970
98230
```

```
IF HIST-INDLY IS EQUAL TO 100 THEN GO TO HIST-WRITE.
                                                                                                                                        C98970
98240
            HIST-PREP-SPACE.

ADD 1 TU HIS'-INDEX.

MOVE SPACE TO HIST-POINT EMIST-INDEX.

IF HIST-INDEX IS LESS THAN 100 [MEN GO TO HIST-PREP-SPACE.
                                                                                                                                        C98970
C98970
 98250
98260
                                                                                                                                        C98970
 98270
98280
                                                                                                                                        C98970
                    GO TO HIST-WAITE.
98290
                                                                                                                                        C98970
 98300
                     AUD I TO HIST-INDEX.
                                                                                                                                        C98970
98310
                    ADD I TO HIST-INDEX.

MOVE SPACE TO HIST-POINT EHIST-INDEX.

IF HIST-INDEX IS LESS THAN 100 THEN GO TO HIST-CUM-1.

COMPUTE HIST-INDEX > HIST-CUM < 0.5.

IF HIST-INDEX IS EQUAL TO ZERO GO TO HIST-WRITE.

MOVE ::: TO HIST-POINT EHIST-INDEX.
                                                                                                                                         C98970
 98330
                                                                                                                                         C98970
                                                                                                                                        C98970
 98338
                                                                                                                                        C98970
C98970
            MOVE :*: 10 N.S.

HIST-WPITE.

WRITE HIST-RFC FROM HIST-LINE-OUT.

ADD I TO HIST-LINE-CNT.

IF HIST-PAGE-FLAG IS EQUAL TO ZERO GO TO HIST-NO-PAGING.

IF HIST-LINE-CNT IS EQUAL TO HIST-PAGE-FLAG

THEN PERFORM HIST-PRINT-TITLE.
 98.540
                                                                                                                                         C98970
 98410
                                                                                                                                        C98970
 98412
 98414
                                                                                                                                         COAGTO
 98415
                                                                                                                                        C98970
                                                                                                                                        C98970
C98970
96416
98417
                    IF HIST-LINE IS LESS THAN HIST-NO-OF-INTERVALS THEN GO TO HIST-PREPARE.
                                                                                                                                        C98970
C98970
98430
                    WRITE HIST-REC FROM HIST-DOT-LINE,
MOVE HIST-SCALE-VALUE TO HIST-SCALE-RPT.
WHITE HIST-HTC FROM HIST-SCALE-LINE.
IF HIST-OUT-RANGE-VALUE IS EQUAL TO ZERO GO TO HIST-WRITE-B.
MOVE HIST-OUT-RANGE-VALUE TO HIST-OUT-RANGE-RPT.
                                                                                                                                        C98970
C98970
 98440
98450
 98460
9547U
98480
                                                                                                                                        C98970
                                                                                                                                        C98970
98490
                     WRITE HIST-RIC FROM HIST-OUT-RANGE-REC.
                                                                                                                                        C98970
             HIST-WRITE-b.
                                                                                                                                        C98970
98500
                    WRITE HIST-HEC FROM HIST-DOT-LINE.
                                                                                                                                        C98970
98510
94520
                    GO TO LIND-HIST.
                                                                                                                                        C98970
             HIST-ERHOR-I.
                                                                                                                                        C98970
99000
                    WRITE HIST-HEC FROM HIST-TITLE, MOVE HIST-ERP-I TO HIST-TITLE-I.
99010
                                                                                                                                        C98970
99020
                    MOVE HIST-ENM-1 TO HIST-TITLE-I.
MOVE HIST-NO-OF-OBS TO HIST-ERR-2.
RITE HIST-RUC FROM HIST-TITLE.
MOVE :1: TO HIST-FLAG.
GO TO LND-HIST.
                                                                                                                                        C98970
                                                                                                                                        C98970
99030
                                                                                                                                        C98970
 99040
                                                                                                                                        C98970
99050
99060
            HIST-ERHOR-2.

MOVE HIST-ER -4 TO HIST-TITLE-1.
99100
                                                                                                                                        C98970
C98970
99110
                    MOVE HIST-ERP-5 TO HIST-TITLE-2.
WRITE HIST-REC FROM HIST-TITLE.
MOVE ::: TO HIST-FLAG.
GO TO END-H:T.
                                                                                                                                         C98970
 99120
                                                                                                                                         C98970
99130
 99140
                                                                                                                                         C98970
99150
           HIST-ERH-J.
MOVE : I: TO HIST-FLAG.
END-HIST. EXIT.
99200
                                                                                                                                        C98970
99210
99990
                PLACE COBUL SOURCE BEFORE
/*
//CHG, TFGIN DU */30.703 I1 0202080
                                                                                                                                    1440 CDS
TEG DT03
*END
                PLACE TFG DATA BEFORE THIS CARD

12 DD DISH>[OLD+KEEP]+VOL>SER>+F1.UNIT>T+F1

25 DD DISH>[OLD+KEEP]+VOL>SER>+F8.UNIT>T+F8

RIN DU +.SPACE>(TRK,[11,1])

5 1998130R00U
//TPR. TU12
//TPR.TU25
 //TPR. TPRIN
         TU25
                PLACE T/P CONTI OL CARDS BEFORE THIS CARD
```

6.9.4 SORT FOR REPAIR ACTION INTERVALS

```
//T9897J JOB
//C9897F EXEC
//CHG.SORTIN
D DISTN: KEEP J.UNITNEAFF5.2.DEFER J.
CT22 2

// VOL>SERNI. HF5.AFF5.B+F5.C+F5.D+F5.E+F5.F+F5.G+F5.H+F5.CT22 3

// VOL>SERNI. HF5.AFF5.B+F5.C+F5.D+F5.E+F5.F+F5.G+F5.H+F5.CT22 3

// DCBNI. HF5.D AFF5.B HF5.D HF5.D
```

6.9.5 CUMULATIVE DISTRIBUTION FOR REPAIR ACTION INTERVALS

```
P9h55L,T;ME>10.ACCT>D35323007
DD 015: >C.PA$5JuN1T>EAF1.e2.DEFERJ.DSN>+A.9897430.
VOL>SER>f +F1.A+F1.B+F1.C+F1.0+F1.E+F1.F+F1.G+F1.M+F1.
I+F1.J+F1.K+F1.L+F1.M+F1.N+F1.0+F1.P+F1.G+F1.R+F1.S+F13
//C9897C EXEC
                                                                                                                            CT12/13 1
//CHG. TU12
                                                                                                                            CT12
                          TO DISTRIBUTE COMPLE G. WANG.
//CHG. TU25
                                                                                                                            CT25
                                                                                                                              1440 CDS
//CHG. INPUT
           COMBINE COMP
DATE-WRITTEN. 7 APR 72.
00000
                                              COMPILE
01040
                                                                                                                                  C98970
           REMARKS.

MAINTENAI.CE STUDY PROGRAM 3C.

REPAIR ACTION INTERVALS.

REPAIR ACTION INTERVALS.
                                                                                                                                  C98970
01050
                                                                                                                                  C98970
                                                                                                                                  C98970
01070
                                    PREPARES CUMULATIVE DISTRIBUTION OF REPAIR ACTION
INTERVALS.
INFUT SORT SEQUENCE
AIRCRAFT SUB-SET, DATA-TYPE, WUC, HMC,
01080
                                                                                                                                  C98970
01090
                                                                                                                                  C98970
01110
                                                                                                                                  C98970
            ENVIRONMENT DIVISION.
                                                                                                                                  C98970
           ENVIHONMENT DIVISION,
CONFIGURATION SECTION,
SOUNCE-COMPUTER. IBM-360.
OBJECT-COMPUTER. IBM-360.
INPUT-OUTPUT SECTION,
FILE-CONTHOL.
SELECT IN-FILE
RESLRVE 1 ALTERNATE AREA.
SELECT HIST-FILE
RESLRVE 1 ALTERNATE AREA.
SELECT CUT-UFF-FILE
RESLRVE 1 ALTERNATE AREA.
DATA DIVISION.
02000
                                                                                                                                  C98970
C98970
02010
02020
02030
                                                                                                                                  C98970
                                                                                                                                  C98970
02100
                                                                                                                                  C98970
                                                                       ASSIGN TO UT-S-TU12
U2120
                                                                                                                                  C98970
02130
                                                                                                                                  C98970
02140
                                                                       ASSIGN TO UT-S-TU25
                                                                                                                                  C98970
                                                                                                                                  C98970
02150
                                                                        ASSIGN TO DA-S-DT03
                                                                                                                                  C98970
                                                                                                                                  C98970
09010
10000
            DATA DIVISION.
                                                                                                                                  C98970
10010
11100
            FILE SECTION.
                                                                                                                                  C98970
                                                                                                                                  C98970
                  IN-FILE
RECORDING MODE IS F
HLOCK CONTAINS 90 RECORDS
HECURD CONTAINS 20
LABEL HECORDS ARE OMITTED
DATA HECORDS ARE IN-REC.
IN-HEC SYNC.
02 WUC
02 HMC
02 FILLER
02 OBS
02 OBS-1 REDEFINES OBS
02 FILLER
11120
                                                                                                                                  C98970
                                                                                                                                  C98970
11130
11140
                                                                      CHARACTERS
                                                                                                                                  C98970
C98970
11150
                                                                                                                                  C98970
            01
11170
                                                                                                                                  C98970
11180
                                                                    PICTURE XES3.
PICTURE XES3.
                                                                                                                                 C98970
C98970
11181
                                                                    PICTURE X.
PICTURE S9[6].
PICTURE S99999V9.
11182
11183
                                                                                                                                  C98970
                                                                                                                                  C98970
                          FILLER
ISCHRONAL -NEW
                                                                    PICTURE X.
11185
                                                                                                                                  C98970
                                                                                                                                 C98970
11186
11187
                         FILLER
DATA-TYPE -NEW
                                                                    PICTURE X.
                                                                                                                                  C98970
11188
11187
                   02 DATA-TY
                                                                    PICTURE X.
                                                                                                                                 C98970
                                                                    PICTURE X.
                                                                                                                                  C98970
                  HIST-FILE
RECORDING MODE IS F
BLOCK CONTAINS 15 RECORDS
            FD
                                                                                                                                 C98970
C98970
12100
12120
12130
                                                                                                                                  C98970
                   RECORD CONTAINS 130
LABEL RECORDS ARE OMITTED
12140
                                                                     CHARACTERS
                                                                                                                                  C98970
                                                                                                                                  C98970
12150
12160
                   DATA RECORDS ARE HIST-REC.
                                                                                                                                  C98970
                  HIST-REC SYNC.
02 FILLER
CUT-OFF-FILE
12170
            01
                                                                                                                                  C98970
                                                                                                                                  C98970
                                                                    PICTURE XC1301.
12180
                                                                                                                                  C98970
29000
                  CUT-OFF-FILE
#ECOPDING MODE IS F
BLOCK CUNTAINS 20 RECORDS
RECORD CONTAINS 80
LABEL RECORDS ARE STANDARD
DATA #ECORDS ARE CUT-OFF-REC.
CUT-OFF-REC SYNC.
05 NI-CUT-OFF
05 ISO-CUT-FF
05 FILLER
P
KING-SIDHAGE SECTION.
29010
                                                                                                                                  C98970
                                                                                                                                  C98970
29030
                                                                     CHARACTERS
                                                                                                                                  C98970
29040
                                                                                                                                  C98970
29050
                                                                                                                                  C98970
29060
                                                                                                                                  C98970
                                                                    PICTURE 9053.
PICTURE 9053.
29070
                                                                                                                                  C98970
29080
                                                                                                                                  C98970
29090
                                                                    PICTURE XE701.
                                                                                                                                  C98970
            WORKING-STORAGE SECTION.
30000
                                                                                                                                  C98970
30010
30020
                  KNT SYNC PICTURE S9051.
                                                                                                                                  C98970
                                                                                                                                  C98970
                   02 FREG-HIST-VALUE OCCURS 1000 TIMES PICTURE S9(5)
COMPUTATIONAL.
A PICTURE S9(5) COMPUTATIONAL.
30030
30040
                                                                                                                                  C98970
30050
                                                                                                                                  C98970
                                                                    PICTURE 9999 VALUE ZERO.
PICTURE X VALUE :2:.
PICTURE X VALUE :1:.
30060
                  NO-OF-HISTS
TWO SYNC
                                                       SYNC
                                                                                                                                  C98970
            01
                                                                                                                                  C98970
30080
            01
                   ONE
                                          SYNC
                                                                                                                                  C98970
                  CHT SYNC
CUR-WUC-T SYNC.
30090
            01
                                                                    PICTURE S9053 COMPUTATIONAL.
                                                                                                                                  C98970
30100
                                                                                                                                  C98970
30110
                   02 FILLER
02 CUR-WUC
                                                                    PICTURE XC53 VALUE : WUC>1. PICTURE XC53.
                                                                                                                                  C98970
C98970
30130
            01
                   CUR-HMC-T SYNC.
                                                                                                                                  C98970
                  02 FILLER
02 CUR-HMC
02 FILLER
15CHRUHAL SYNC
                                                                    PICTURE XC53 VALUE I HMC>1. PICTURE XC53. PICTURE XX VALUE SPACE.
30140
30150
                                                                                                                                  C98970
                                                                                                                                  C98970
30160
                                                                                                                                  C98970
                                                                    PICTURE X.
                                                                                                                                  C98970
```

```
PICTURE X. PICTURE S999 VALUE -1 SYNC.
         01 DATA-TYPE
               DATA-TYPE STNC
MINUS-ONE COMPUTATIONAL
30180
                                                                                                     C98970
                                                                                                     C98970
30140
               REPOPT-IO SYNC.
                                                                                                     C98970
C98970
52000
         01
               02 FILLER
                                                     PICTURE MESO 3 VALUE
32010
                         1$989/460 TF7919-02 142-8 1 1/2

ER PICTURE X[50] VALUE SPACE.

ER PICTURE X[30] VALUE
32020
                                                                                                     C98970
                    FILLER
52030
                                                                                                     C98970
32040
                    FILLER
                                                                                                     C98970
32050
                                                                                                     C98970
               MEAN COMPITATIONAL SYNC PICTURE SETTINGS.
VARIANCE COMPITATIONAL SYNC PICTURE SETTINGS.
TEMP-COMP PICTURE SETTINGS.
               MEAN
         01
46000
                                                                                                     C98970
         01
46010
                                                                                                      C98970
45020
         01
                                                                                                     C98970
               MEAN-VARIANCE-LINE SYNC.
46100
                                                                                                     C98970
               02 FILLER
                                                                                                     C98970
C98970
46110
                                                     PICTURE XC503 VALUE
                          :5
46120
               02 FILLER
                                                     PICTURE X[19] VALUE
46130
                                                                                                      C98970
                                             MEAN >:.
46140
46150
                                                                                                     C98970
                    MEAN-RPT
                                                     PICTURE ZZZ9.9.
                                                                                                     C98970
               02 FILLER
                                                     PICTURE X[ 30 ] VALUE VARIANCE >1.
46160
                                                                                                     C98970
46170
                                                                                                     C98970
               02 VARIANO
02 FILLER
46180
                    VARIANCE-RPT
                                                     PICTURE ZZZZZZ9.9
                                                                                                      C98970
                                                      PICTURE XE 16 J VALUE
46190
                                                                                                     C98970
                                                                                                      C98970
46200
               HIST-VALUE-MAX SYNC
HIST-VALUE-MIN SYNC
HIST-NO-OF-OPS SYNC
                                                     PICTURE S9999V99 VALUE -9999.9.
PICTURE S9999V99 VALUE (9999.9.
47000
47010
         01
                                                                                                     C98970
                                                                                                     C98970
         01
                                                     PICTURE S9[5] VALUE ZERO.
PICTURE 999999 VALUE 50.
PICTURE 9 VALUE ZERO.
47020
          01
                                                                                                      C98970
               HIST-NO-OF-INTERVALS SYNC
47030
         01
                                                                                                     C98970
47040
               HIST-INPUT-VM:X-VMIN SYNC PHIST-DIST SYNT PHIST-INUEX SYNC COMPUTATIONAL
                                                                                                      C98970
47050
         01
                                                     PICTURE X
                                                                          VALUE :1:.
                                                                                                     COROTA
         01
                                                                                                     C98970
47060
47070
47080
                                                     PICTURE S999
                                                                         VALUE ZERO.
                                                                                                      C98970
               HIST-INDEX-2 SYNC COMPUTATIONAL
         01
                                                                                                     C98970
                                                     PICTURE S999 VALUE ZERO.
PICTURE S9999999 VALUE ZERO.
PICTURE S999V99 VALUE ZERO
47090
                                                                                                      C98970
               HIST-TEMP SYNC
47100
47110
         Ωı
                                                                                                     C98970
               HIST-INTERVAL-SIZE SYNC
                                                                                                     C98970
         01
47120
               COPPUTATIONAL.
                                                                                                      C98970
                                                     PICTURE X
47150
         01
                                                                          VALUE 101.
                                                                                                     C98970
47160
               HIST-SCALE-VALUE SYNC COMPUTATIONAL
          01
                                                                                                      C98970
47170
                                                     PICTURE S999
                                                                         VALUE (1.
                                                                                                      C98970
               HIST-PERCENT SYNC
HIST-LUM SYNC
HIST-LINE SYNC COMPUTATIONAL
                                                     PICTURE S999V99 COMPUTATIONAL.
PICTURE S999V99 COMPUTATIONAL.
47180
47190
                                                                                                      C98970
                                                                                                      C98970
47200
47210
          01
                                                                                                      C98970
                                                     PICTURE S999 VALUE ZERO.
PICTURE S990.
PICTURE S990.
                                                                                                     C98970
               HIST-PAGE-FL. G SYNC
HIST-LINE-CN* SYNC
HIST-ERH-I SYNC
47220
          01
                                                                                                     C98970
         01
47230
                                                                                                      C98970
                                                      PICTURE XCIOJ VALUE
47300
          01
                                                                                                     C98970
                                       :ERROR NO O:.
47510
                                                                                                      C98970
               HIST-ERK-3 5' VC.
47320
          01
                                                                                                      C98970
               02 FILLER
U2 HISI-ERR-2
HIST-ERR-4 SY IC
                                                     PICTURE X[5]
PICTURE S9[5]
PICTURE X[10]
47530
                                                                          VALUE IBS > :.
                                                                                                     C93970
47340
                                                                          VALUE ZERO.
                                                                                                      C98970
                                                                          VALUE
                                                                                                      C98970
47360
                                        :ERROR MAXI
                                                     PICTURE XE 103 VALUE
47570
47580
               HIST-LRH-5 SYNC
          01
                                                                                                      C98970
                                       :-MIN BAD. :
                                                                                                     C98970
6 100
               HIST-OUT-RANCE-VALUE SYNC
                                                      PICTURE S999 COMPUTATIONAL.
                                                                                                      C98970
               FILLER SYNC.
          01
4. 200
                                                                                                     C98970
47510
                    FILLER OCCURS 200 TIMES.
                                                                                                      C98970
                                                     PICTURE S9[5] COMPUTATIONAL.
PICTURE S999999 COMPUTATIONAL.
PICTURE S999V99 COMPUTATIONAL.
47530
47540
                    03 HIST-TABLE
03 HIST UPPER-LIMIT
03 HIST-TABLE-SCALED
                                                                                                      C98970
                                                                                                      C98970
47550
                                                                                                      C98970
               HIST-HEN-PAGE SYNC.
47560
                                                                                                      C98970
47570
               02
                    FILLER
                                                     PICTURE X
                                                                                                      C98970
                                                                       VALUE :11.
                                                     PICTURE X[122] VALUE SPACE,
PICTURE X[5] VALUE :PAGE :
47580
47582
                    FILLER
                                                                                                      C98970
                    FILLER
                                                                                                      C98970
               02
                    HIST-PAGE-NO FILLER
47584
                                                      PICTURE 9.
                                                                                                      C98970
47590
                                                                       VALUE 1#1.
               02
                                                      PICTURE X
                                                                                                     C98970
               HIST-TITLE SYNC.
                                                                                                      C98970
47000
          01
               02 FILLEH
02 HIST-TI
47610
                                                     PICTURE XE33 VALUE IS 1.
                                                                                                      C98970
                    HIST-TITLE-1.
47620
                                                                                                     C98970
47621
                    05 FILLER
HIST-TITLE-2.
                                                     PICTURE X[10] VALUE SPACE.
                                                                                                      C98970
               02
47630
                                                                                                     C98970
                    03 FILLER
HIST-TITLE-3
HIST-TITLE-4
                                                     PICTURE XE103 VALUE SPACE.
PICTURE XE103 VALUE SPACE.
PICTURE XE103 VALUE SPACE.
47631
                                                                                                      C98970
47640
               02
                                                                                                      C98970
                                                                                                     C98970
47050
               02
                    FILLER
47660
                                                      PICTURE XE243 VALUE
                                                                                                      C98970
                                NO OF OBSERVATIONS 31.
F-OBS-RPT PICTURE 22229.
47670
                                                                                                     C98970
47680
                    HIS -- NO- F-085-RPT
                                                                                                     C98970
47690
               02
                    FILLER
                                                     PICTURE XE 133 VALUE
                                                                                                      C98970
                           : VALUE MAX > 1.
                                                                                                     C98970
                    HIST-VALLE-MAX-RPT
47710
                                                     PICTURE ----- 9. PICTURE XE 131 VALUE
                                                                                                     C98970
47720
               02 FILLER
                                                                                                     C98970
47730
                           : VALUE MIN > :.
                                                                                                      C98970
                    HIST-VALUE-MIN-RPT
                                                     PICTURE ----.9
47740
               02
                                                                                                     C98970
47750
                                                     PICTURE XE183 VALUE
                                                                                                     C98970
                    FILLER
47760
                                                                                                      C98970
              HIST-UOT-LINE SYNC.
         01
                                                                                                     C98970
47900
                    FILLER
                                                     PICTURE XESO3 VALUE
47420
                          1/-
                                                                                                     C98970
```

```
47922
                    02 FILLER
                                                                         PICTURE XC803 VALUE
                                                                                                                                           C98970
                                                                                                                                           C98970
                   HIST-LAUEL SYNC.
47950 01
47970 :/ MIDPNT PCNT CUM FREQ 1...5...10...15...20.:
47974 02 FILLER PICTURE XC80 J VALUE :..
47980 - :25...30...35...40...45...50...55...60...65...70...75...80...
47990 01 HIST-LINE-OUT SYNC.
48010 02 FILLER
                                                                                                                                           C98970
                                                                                                                                          C98970
                                                                                                                                          C98970
C98970
                                                                                                                                           C98970
C98970
                                                                         PICTURE X VALUE 1/:,
PICTURE ZZ9,
PICTURE X VALUE SPACE,
PICTURE ----9,
PICTURE ZZ9.9,
                    02 FILLER
02 HISI-LINE-RPT
02 FILLER
48010
                                                                                                                                           C98970
48020
                                                                                                                                           C98970
                            FILLER
HIST-MID-POINT-RPT
HIST-PERCENT-RPT
 48030
48040
                     02
                                                                                                                                           C98970
 48060
                                                                                                                                           C98970
                     02
                                                                         PICTURE X VALUE SPACE.
PICTURE ZZ9.9.
PICTURE ZZZ29.
48070
                            FILLER
                                                                                                                                           C98970
                            HIS:-CUM-RPT
HIST-FREG-RPT
48080
                     02
                                                                                                                                           C98970
 48100
                     U2
                    02 FILLER
02 HIS:-POINT OCCURS 100 TIMES
PICTURE X.
                                                                                                                                           C78970
4AIIO
                                                                         PICTURE X VALUE SPACE.
                                                                                                                                           C98970
48120
48130
                                                                                                                                           C98970
            02 FILLER
01 HIST-UUI-HANGS-REC SYNC.
48140
                                                                         PICTURE X VALUE 1#1.
                                                                                                                                           C98970
48150
                                                                                                                                           C98970
48160
                     U2 FILLER
                                                                         PICTURE XESS VALUE
                                                                                                                                            C98970
                                           - NAME PALTURE ZZ9.

- NAME PALTURE ZZ9.

- PICTURE ZZ9.

PICTURE XC913 VALUE SPACE.

PICTURE X VALUE 1#1.
48170
                                   :/
                                                                                                                                           C98970
                     U2 HIST-OUT- LANGE-RPT
48180
                                                                                                                                           C98970
                    02 FILLER
48190
                                                                                                                                            C98970
48191
                                                                                                                                           C98970
            01
                    HIST-SCALE-LINE SYNC.
                                                                                                                                           C98970
 48200
                    02 FILLER SCALING FACTOR > 1.
02 H151-5CALE-RPT PICTURE ZZ9.
02 FILLER PICTURE XC0991 VALUE SPACE.
03 FILLER PICTURE X VALUE :#:.
                                                                                                                                           C98970
48210
48220
                                                                                                                                           C98970
 48230
48240
                                                                                                                                           CGAGTO
48250
                                                                                                                                           C98970
48300
             01
                    FILLER SYIIC
                                                                                                                                           C98970
                     02 HIST-VALUE OCCURS 1000 TIMES
                                                                                                                                           C98970
48320
                                                                         PICTURE S9999V9 COMPUTATIONAL.
                                                                                                                                            C98970
            PROCEDURE DIVISION.
50U00
                                                                                                                                           C98970
                    OPEN DIVISION.

OPEN IMPUT CUT-OFF-FILE.

HEAD CUT-OFF-FILE AT END GO TO CLOSE-FILES.

CLOSE CUT-OFF-FILE WITH LOCK.

OPEN INPUT IN-FILE.

OPEN OUTPUT HIST-FILE.
50002
                                                                                                                                           C98970
50003
50010
                                                                                                                                           C98970
                                                                                                                                           C98970
50020
                    MOVE 1000 TO (NT.
PERFORM RESET-TABLE THRU END-RST-TABLE.
READ 14-FILE. AT END GO TO CLOSE-FILES.
WRITE HIST-RES FROM REPORT-ID.
50030
                                                                                                                                            C98970
                                                                                                                                           C98970
50040
 50050
                                                                                                                                            C98970
50060
                                                                                                                                           C98970
             PARA-I.
50100
                                                                                                                                           C98970
50110
                    MOVE 1 TO HIST-HO-OF-OBS.
                                                                                                                                           C98970
                    MOVE WIC TO CUR-WUC.

MOVE WIC TO CUR-WUC.

MOVE HMC TO CUR-HMC.

MOVE LATA-TYPE-NEW TO DATA-TYPE.

MOVE ISCHRONAL-NEW TO ISCHRONAL.

IF DATA-TYPE IS EQUAL TO ONE GO TO WEEKS-DATA ELSE GO TO

FLT-DATA.
                                                                                                                                           C98970
50120
50130
                                                                                                                                            C98970
50140
                                                                                                                                           C98970
50150
                                                                                                                                           C98970
50160
                                                                                                                                            C98970
50170
                                                                                                                                           C98970
            READ1.
                                                                                                                                           C98970
50200
                    PI.

READ IN-FILE, AT END GO TO CLOSE-FILES.

IF UATA-TYPE-HEW IS EQUAL TO 19: GO TO CLOSE-FILES.

IF WUC IS NOT EQUAL TO CUR-WUC GO TO PARA-2.

IF HMC IS NOT EQUAL TO CUR-HMC GO TO PARA-2.

ADD 1 TO HIST-NO-OF-OBS.

IF DATA-TYPE S EQUAL TO ONE GO TO WEEKS-DATA ELSE GO TO FLT-DATA.
50210
50220
                                                                                                                                           C98970
                                                                                                                                           C98970
 50230
                                                                                                                                            C98970
50240
                                                                                                                                           C98970
                                                                                                                                           C98970
50250
50260
50270
                                                                                                                                           C98970
50300
50310
             PARA-2.
                                                                                                                                            C98970
                    PERFORM SET-HISTOG THRU END-SH.
PERFORM RESET-TABLE THRU END-RST-TABLE.
                                                                                                                                           C98970
 50320
                                                                                                                                            C98970
            GO TO PARA-1,
RESET-TABLE.
                                                                                                                                           C98970
50330
50400
50410
50420
                    MOVE ZERO TO SNT.
                                                                                                                                           C98970
             HST.
50430
                    AUD 1 TO CHT.
                                                                                                                                            C98970
             MOVE MINUS-ONE TO HIST-VALUE [CNT].

MOVE ZERO TO THEO-HIST-VALUE [CNT].

IF CN! IS LESS THAN KNT GO TO RST.

MOVE ZERO TO KNT.

END-HST-TABLE, EXIT.
 50440
50445
                                                                                                                                            C98970
 50450
                                                                                                                                            C98970
50455
                                                                                                                                            C98970
50460
                                                                                                                                           C98970
50510
             SET-HISTOG.
                   -HISTOG.

IF ISCHHONAL IS EQUAL TO ONE AND HIST-NO-OF-OBS IS NOT GREATER THAN ISO-CUT-OFF GO TO END-SH.

IF ISCHHONAL IS EQUAL TO TWO AND HIST-NO-OF-OBS IS NOT GREATER THAN NI-CUT-OFF GO TO END-SH.

IF ISCHHONAL IS EQUAL TO ONE MOVE : ISO : TO HIST-TITLE-4, ELSE MOVE: NON-ISO : TO HIST-TITLE-4.

IF DATA-TYPE 'S EQUAL TO ONE MOVE : WEEKS : TO HIST-TITLE-3.

MOVE CUR-WUC-T TO HIST-TITLE-1.

MOVE CUR-HMC-; TO HIST-TITLE-2.
                                                                                                                                           C98970
50512
                                                                                                                                           C98970
50514
                                                                                                                                           C98970
50516
                                                                                                                                           C98970
50518
                                                                                                                                           C98970
50520
50530
                                                                                                                                           C98970
 50540
50550
                                                                                                                                           C98970
50560
                                                                                                                                           C98970
50570
```

```
PERFORM WRITE HISTOGRAM THRU END-HIST.

1F HIST-FLAG TS EQUAL TO 111 THEN 60 TO CF1.
50590
                                                                                                                              C98970
50000
                                                                                                                              C98970
                   ADD 1 TO NO-OF-HISTS.
50610
                                                                                                                              C98970
           END-SH. EXII.
50620
                                                                                                                              C98970
51000
                                                                                                                              C98970
                   MOVL ZERO TO CHT.
 51010
                                                                                                                              C98970
51020
                                                                                                                              C98970
                  ADD 1 TO CNT.

IF ORS 15 TOUAL TO H15T-VALUE [CNT] GO TO WEEK-C.

IF FRED-HIST-VALUE [CNT] IS EQUAL TO ZERO GO TO WEEK-B.

IF CNT 15 LESS THAN 1000 GO TO WEEK-A.

DISPLAY: MOR: THAN 1000 FREQUENCY OCCURENCES ! UPON CONSOLE.
51030
                                                                                                                              C98970
 51040
                                                                                                                              C98970
51050
51060
                                                                                                                              C98970
 51470
                                                                                                                              C98970
                   GO TO CF1.
51UA0
                                                                                                                              C98970
51090
            WEEK-B.
                                                                                                                              CGAG70
                  (-B. MOVE OBS TO HIST-VALUE CONT). IF ONT IS GRENTER THAN KNT THEN MOVE ONT TO KNT.
51100
51110
                                                                                                                              C98970
51120
            WEEK-C. ADD 1 TO FREQ-HIST-VALUE CONTJ.
                                                                                                                              C98970
51130
                                                                                                                              C98970
           GO TO HEAD1.
FLI-DATA.
51140
                                                                                                                              C98970
52000
                  MOVE ZEHO TO CHT.
52010
                                                                                                                              CGRG70
52020
                                                                                                                              C98970
                  ADD 1 TO CNT.

IF OBS-1 15 SQUAL TO HIST-VALUE [CNT] 80 TO FLT-C.

IF FREU-HIST-VALUE [CNT] IS EQUAL TO ZERO 80 TO FLT-B.

IF CNT 15 LES; IMAN 1000 GO TO FLT-A.

DISPLAY: MORT THAN 1000 FREQUENCY OCCURENCES : UPON CONSOLE.
52030
52040
                                                                                                                              C98970
                                                                                                                              C98970
52050
                                                                                                                              C98970
52460
                                                                                                                              C98970
52070
                                                                                                                             C98970
52080
                  60 TO CF1.
                                                                                                                              C98970
52090
           FLT-B.
                                                                                                                              C98970
                  MOVE OUS-1 TO HIST-VALUE [CNT].

1F CNT IS GREATER THAN KNT THEN MOVE CNT TO KNT.
52100
                                                                                                                              C98970
52110
                                                                                                                              C98970
52120
                                                                                                                              C98970
                  ADD 1 TO FREQ-HIST-VALUE CONT .
52130
                  GO TO READ1.
52140
                                                                                                                              C98970
           CLUSE-FILES.
PERFORM SET-HISTOG THRU END-SH.
52200
                                                                                                                              C98970
                                                                                                                             C98970
C98970
52205
52207
                  CLOSE IN-FILE HIST-FILE.

15 HIST-FLAG IS EQUAL TO 11: DISPLAY : HIST ERROR : UPON
52210
52211
                                                                                                                              C98970
                  CONSOLE.
DISPLAY: NO 'F HISTOGRAMS >: NO-OF-HISTS UPON CONSOLE.
DISPLAY: EOJ C9897P: UPON CONSOLE.
GORACK.
52212
                                                                                                                              C98970
52215
                                                                                                                              COAGTO
52220
52230
                                                                                                                              C98970
C98970
           COMPUTE-MEAN-VARIANCE.
MOVE ZERO TO CNI.
MOVE ZERO TO MEAN.
95000
95010
                                                                                                                              C98970
95020
                                                                                                                              C98970
95030
                                                                                                                              C98970
95040
                  ADD 1 TO CHT.
                                                                                                                              C98970
                  COMPUTE TEMP-COMP > HIST-VALUE [CNT] + FREG-HIST-VALUE [CNT].
ADD TEMP-COMP TO MEAN.
95050
95060
                                                                                                                              C98970
                  IF CHT IS LESS THAN KNT GO TO CMV-1.
95070
                                                                                                                              C98970
                  DIVIDE HIST-NU-OF-OBS INTO MEAN.
MOVE ZERO TO NT.
MOVE ZERO TO MARIANCE.
950A0
                                                                                                                              C98970
95090
                                                                                                                              C98970
95100
                                                                                                                              C98970
                  IF HIST-NO-OF-OUS IS LESS THAN 2 GO TO END-CMY.
95105
                                                                                                                              C98970
           CMV-2
95110
                                                                                                                              C98970
                  ADP 1 TO CHT.
95120
                                                                                                                              C98970
                  COMPUTE TEMP-COMP > [[HIST-VALUE [CNT] - MEAN] + 2] + FREQ-HIST-VALUE [CNT].
45130
                                                                                                                              COROZO
                  ADD TEMP-COMP TO VARIANCE.

IF (NT 15 LEST THAN KNT GO TO CMV-2.

COMPLITE VARIANCE > VARIANCE / (HIST-NO-OF-OBS = 1].

MOVE MEAN TO MEAN-RPT.
95140
                                                                                                                              C98970
95150
95160
                                                                                                                              C98970
                                                                                                                              C98970
95170
951AU
                                                                                                                              COASTO
                  MOVE VARIANCE TO VARIANCE-RPT. WRITE HIST-REF FROM MEAN-VARIANCE-LINE.
                                                                                                                              C98970
95200
                                                                                                                              C98970
          WRITE HIST-REF FROM MEAN-VARIANCE-I
ENU-CMV. EXIT.

WHITE-HISTOGRAM.

MOVE :0: TO M'SI-FEAG.

MOVE ZERO TO HIST-OUT-RANGE-VALUE.

MOVE 24RO TO HIST-PAGE-NO.

MOVE -9999.9 TO HIST-VALUE-MIN.

MOVE ZERO TO HIST-INDEX.
95290
                                                                                                                              C98970
97000
                                                                                                                              C98970
970A0
                                                                                                                              C98970
97090
                                                                                                                              C98970
97100
                                                                                                                              C98970
97140
                                                                                                                              C98970
97150
                                                                                                                              C98970
97200
                MOVE ZERO TO HIST-INDEX.

#T-FINC-VMAX-VM.N.

ADD I TO HIST-INDEX.

MOVE HIST-VALUE [HIST-INDEX] TO HIST-TEMP.

IF HIST-TEMP IS GREATER THAN HIST-VALUE-MAX THEN MOVE

HIST-TEMP TO HIST-VALUE-MAX.

IF HIST-TEMP TO HIST-VALUE-MIN THEN MOVE

HIST-TEMP TO HIST-VALUE-MIN.

IF HIST-INDEX IS LESS THAN KNT

THEN 60 TO

HIST-FIND-VMAX-VMIN.
                                                                                                                             C98970
           H15
97210
                                                                                                                              C98970
97420
                                                                                                                              C98970
97230
                                                                                                                              C98970
97240
97250
                                                                                                                              C98970
97260
                                                                                                                              C98970
97270
972HD
                                                                                                                              C98970
                  HIST-FIND-YMAX-YMIN.

1F DATA-TYPE 1S EQUAL TO ONE COMPUTE HIST-NO-OF-INTERVALS >
97290
                                                                                                                              C98970
97292
                                                                                                                              CORO70
                  HIST-VALUE-MAX < 4.

IF DATA-TYPE IS EQUAL TO TWO COMPUTE HIST-NO-OF-INTERVALS >
HIST-VALUE-MAX / 8 < 4.
97294
                                                                                                                              C98970
97296
                                                                                                                              C98970
97298
                                                                                                                              C98970
         HIST-PRINT- FITLE .
```

```
97301
97302
                                      IF HIST-NO-OF-INTERVALS IS LESS THAN 50 MOVE 50 TO
                                                                                                                                                                                                                                                      C98970
                                               HIST-NO-OF INTERVALS.
                                                                                                                                                                                                                                                      C98970
                                    HIST-NO-OF INTERVALS.

ADD 1 TO HIST-PAGE-NO.

MOVL 5 TO HIST-LINE-CNT.

WRITE HIST-REL FROM HIST-NEW-PAGE.

MOVL HIST-NO- F-OBS TO HIST-NO-OF-OBS-RPT.

MOVL HIST-VALUE-MAX TO HIST-VALUE-MAX-RPT.

MOVL HIST-VALUE-MIN TO HIST-VALUE-MIN-RPT.

WRITE HIST-KEL FROM HIST-TITLE.

PERFORM COMPUTE-MFAN-VARIANCE THRU END-CMV.

WRITE HIST-KEL FROM HIST-LOT-LINE.

WRITE HIST-REL FROM HIST-LABEL.

WRITE HIST-REL FROM HIST-LABEL.
  97304
                                                                                                                                                                                                                                                      C98970
 97306
                                                                                                                                                                                                                                                     COASTO
  97310
                                                                                                                                                                                                                                                     C98970
 97320
97330
                                                                                                                                                                                                                                                     C98970
                                                                                                                                                                                                                                                      C98970
 97350
                                                                                                                                                                                                                                                     C98970
  97355
                                                                                                                                                                                                                                                      C98970
 97360
97370
                                                                                                                                                                                                                                                      C98970
                                                                                                                                                                                                                                                      C98970
  97580
                                                                                                                                                                                                                                                      C98970
                                                                                                                                                                                                                                                      C98970
 97390
                        HIST-DUMMY
                                      IF HIST-VALUE-MAX IS LESS THAN HIST-VALUE-MIN THEN GO TO
                                                                                                                                                                                                                                                      C98970
                                     HIST-ERROR-2.

IF HIST-NO-OF-INTERVALS IS GREATER THAN 200 THEN MOVE 200
TO HIST-NO-OF-INTERVALS.
 47420
                                                                                                                                                                                                                                                      C98970
 97430
                                                                                                                                                                                                                                                     COASTO
  97440
                                                                                                                                                                                                                                                     C98970
 97441
                                      MOVE ZERO TO HIST-INDEX.
                                                                                                                                                                                                                                                      C98970
                     MOVE ZERO TO THE STATE OF THE S
 97442
                                                                                                                                                                                                                                                      C98970
 97443
 47444
                                                                                                                                                                                                                                                      C98970
                                                                                                                                                                                                                                                     C98970
 97446
                                                                                                                                                                                                                                                     C98970
C98970
 97450
 97460
97500
                                                                                                                                                                                                                                                      C98970
                                                                                                                                                                                                                                                      C98970
                        MOVE ZERO TO HIST-INDEX.

MOVE ZERO TO HIST-TEMP.

HIST-INC-INTERVAL.
  97510
                                                                                                                                                                                                                                                      C98970
 97520
                                                                                                                                                                                                                                                      C98970
 97530
                                                                                                                                                                                                                                                     C98970
                                    ADD 1 TO HIST-INDEX.

ADD HIST-INTERVAL-SIZE TO HIST-TEMP.

MOVE HIST-TEMP TO HIST-UPPER-LIMIT EHIST-INDEX].

IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS THEN

GO TO HIST-INC-INTERVAL.

HOTE PLACE OF URANCE INTO APPROPRIATE CHANNEL.
 97540
                                                                                                                                                                                                                                                      C98970
 97550
                                                                                                                                                                                                                                                      C98970
  97560
 9/570
                                                                                                                                                                                                                                                      CGAGTO
 975A0
 97000
                                                                                                                                                                                                                                                      C98970
                       MOYE ZERO TO MIST-INDEX-2.

HIST-OCCURANCE.

ADD 1 TO HIST-INDEX-2.

MOVE MIST-VALUE (HIST-INDEX-2) TO HIST-TEMP.

MOVE ZERO TO MIST-INDEX.
 97010
                                                                                                                                                                                                                                                      C98970
 97620
97630
                                                                                                                                                                                                                                                      C98970
                                                                                                                                                                                                                                                      C98970
                                                                                                                                                                                                                                                     C98970
C98970
 97640
                     97650
 97060
                                                                                                                                                                                                                                                      C98970
 97b70
                                                                                                                                                                                                                                                      C9A97D
                                                                                                                                                                                                                                                      C98970
 97680
                                                                                                                                                                                                                                                      C98970
 97690
                                                                                                                                                                                                                                                     C98970
97700
97710
                                                                                                                                                                                                                                                     C98970
                                                                                                                                                                                                                                                     C98970
                                                                                                                                                                                                                                                     C98970
 97720
 97730
 97740
                        HIST-ADD-TABLE.
                       ADD A TO HIST-TABLE CHIST-INDEX.].
HIST-NO-ADD.
IF HIST-INDEX 2 IS LESS KNT
HOTE COMPUTE SCALE VALUE.
MOVE HIST-TABLE [1] TO HIST-TEMP.
97750
                                                                                                                                                                                                                                                     COROZO
 97751
                                                                                                                                                                                                                                                     C98970
                                                                                                                                                                     GO TO HIST-OCCURANCE.
                                                                                                                                                                                                                                                      C98970
                                                                                                                                                                                                                                                     C98970
97800
 97010
97820
                   MOVE 1 TO HIS -INDEX.

HIST-SCALE.

ADD 1 TO HIST-INDEX.

IF HIST-TARLE (HIST-INDEX) IS GREATER THAN HIST-TEMP THEN MOVE HIST-TABLE (HIST-INDEX) TO HIST-TEMP.

IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS THEN 60 TO HIST-SCALE.

COMPUTE HIST- CALE-VALUE > (HIST-TEMP < 99) / 100.

IF HIST-SCALE-VALUE IS LESS THAN 1 MOVE 1 TO HIST-SCALE-VALUE.

MOVE ZENO TO HIST-INDEX.

HIST-SCALED-VALUE.

ADD 1 TO HIST-INDEX.

COMPUTE HIST-ABLE-SCALED (HIST-INDEX) > HIST-ABLE (HIST-INDEX) / HIST-SCALE-VALUE.

IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS THEN 60 TO HIST-SCALED-VALUES.
                                     MOVE 1 TO HIS -INDEX.
                                                                                                                                                                                                                                                     CORSTO
                                                                                                                                                                                                                                                     C98970
97830
97840
                                                                                                                                                                                                                                                     C98970
                                                                                                                                                                                                                                                     C98970
 97860
                                                                                                                                                                                                                                                      C98970
97870
97880
                                                                                                                                                                                                                                                     COROTO
                                                                                                                                                                                                                                                     C98970
97890
97895
                                                                                                                                                                                                                                                     C98970
97896
97900
                                                                                                                                                                                                                                                     C98970
C98970
                                                                                                                                                                                                                                                     C98970
97420
                                                                                                                                                                                                                                                     C98970
97930
97440
                                                                                                                                                                                                                                                     C98970
                                                                                                                                                                                                                                                     C98970
 97960
                                                                                                                                                                                                                                                      C98970
                                    NOTE PREPARE SUIPUT DATA.
DIVICE 2 INTO HIST-INTERVAL-SIZE.
9Aunn
                                                                                                                                                                                                                                                     C98970
98010
                                                                                                                                                                                                                                                     C98970
                                     MOVE ZEHO TO FIST-CUM.
98020
                                                                                                                                                                                                                                                      C98970
                        MOVE ZERO TO PIST-LINE.
HIST-PREPARE.
ADD 1 TO HIST-LINE.
 98030
                                                                                                                                                                                                                                                      C98970
                                                                                                                                                                                                                                                      C98970
98040
                                                                                                                                                                                                                                                      C98970
                                   ADD 1 TO HIST-LINE.

MOVE HIST-LINT TO HIST-LINE-RPT.

COMPUTE HIST-TEMP > HIST-THEPER-LIMIT CHIST-LINE]

- HIST-INTERVAL-SIZE.

MOVE HIST-TEM. TO HIST-MID-POINT-RPT.

COMPUTE HIST-PERCENT > HIST-TABLE (HIST-LINE) • 100

/ HIST-NO-OF-OBS.

MOVE HIST-PERCENT TO HIST-PERCENT-RPT.

ADD HIST-PERC NT TO HIST-CUM.
                                                                                                                                                                                                                                                      C98970
C98970
 98460
 98070
 98000
                                                                                                                                                                                                                                                      C98970
                                                                                                                                                                                                                                                      C98970
 OPUAP
                                                                                                                                                                                                                                                       C98970
 98100
 98110
                                                                                                                                                                                                                                                      C98970
                                                                                                                                                                                                                                                      C98970
 9A120
                                                                                                                                                                                                                                                      C98970
```

```
MOVE HIST-CUM TO HIST-CUM-RPT.
                                                                                                                                                     C98970
98140
                      MOVE HIST-TABLE (HIST-LINE) TO HIST-FREG-RPT.
MOVE ZERO TO ..IST-INDEX.

IF HIST-DIST 'S NOT EQUAL TO :0: GO TO HIST-CUM-1.
COMPUTE HIST-INDEX-2 > HIST-TABLE-$CALED (HIST-LINE) < 0.5.

IF HIST-INDEX-2 IS EQUAL TO ZERO GO TO HIST-PREP-SPACE.
                                                                                                                                                     C98970
C98970
98150
98160
98170
                                                                                                                                                     C98970
98180
98190
                                                                                                                                                    C98970
C98970
             HIST-PPLP-DIST.

ADD I TO HIST-INDEX.

MOVE :: TO HIST-POINT CHIST-INDEX].

IF HIST-INDEX IS LESS THAN HIST-INDEX=2 80 TO HIST-PREP-DIST.

IF HIST-INDEX IS EQUAL TO 100 THEN 60 TO HIST-WRITE.
98200
98210
                                                                                                                                                     C98970
 98220
                                                                                                                                                     C98970
98230
                                                                                                                                                     C98970
98240
                                                                                                                                                     C98970
                     IF HIST-INDEX ...
-PREP-SPACE.
ADD I TO HIST-INDEX.
MOVE SPACE TO HIST-POINT CHIST-INDEX.
IF HIST-INDEX IS LESS THAN 100 THEN GO TO HIST-PREP-SPACE.
98250
98260
                                                                                                                                                     C98970
                                                                                                                                                    C98970
98270
98280
98290
                                                                                                                                                     C98970
98300
98310
                    T-CUM-1.
ADD I TO HIST INDEX.
             H15
                                                                                                                                                     C98970
                                                                                                                                                     C98970
                      ADD I TO HIST-IMPEX.

MOVE SPACE TO HIST-POINT (HIST-IMPEX).

IF HIST-INDEX IS LESS THAN 100 THEN GO TO HIST-CUM-1.

COMPUTE HIST-INDEX > HIST-CUM < 0.5.

IF HIST-INDEX IS EQUAL TO ZERO GO TO HIST-WRITE.

MOVE :*: TO HIST-POINT (HIST-IMPEX).
                                                                                                                                                     C98970
C98970
98320
98330
 98338
                                                                                                                                                     C98970
98333
98340
                                                                                                                                                    C98970
C98970
98400
             HIST-WRITE.
                                                                                                                                                    C98970
C98970
                      WRITE HIST-REC FROM HIST-LINE-OUT.
98410
                      ADD I TO HIST-LINE-CNT.

IF HIST-PAGE-FLAG IS EQUAL TO ZERO GO TO HIST-NO-PAGING.

IF HIST-LINE-CNI IS EQUAL TO HIST-PAGE-FLAG

THEN PERFORM HIST-PRINT-TITLE.
98412
                                                                                                                                                     C98970
98414
                                                                                                                                                    C98970
                                                                                                                                                     C98970
                                                                                                                                                    C98970
C98970
98416
             HIST-NO-PAGING.
98417
98420
                      IF HIST-LINE IS LESS THAN HIST-NO-OF-INTERVALS THEN 60 TO
                                                                             HIST-PREPARE.
98430
                                                                                                                                                    C98970
                      WRITE HIST-REC FROM HIST-DOT-LINE.

MOVE HIST-SCALE-VALUE TO HIST-SCALE-RPT.

WRITE HIST-REC FROM HIST-SCALE-LINE.

IF HIST-OUT-RA VOE-VALUE IS EQUAL TO ZERO GO TO HIST-WRITE-B.

MOVE HIST-OUT-RANGE-VALUE TO HIST-OUT-RANGE-RPT.
98440
                                                                                                                                                     C98970
98450
                                                                                                                                                     C98970
98460
                                                                                                                                                     C98970
98470
98480
                                                                                                                                                    C98970
                       WRITE HIST-REC FROM HIST-OUT-RANGE-REC.
                                                                                                                                                     C98970
                    TITLE-US.
WRITE MIST-REC FROM HIST-DOT-LINE.
GO TO END-HIST.
                                                                                                                                                    C98970
C98970
98500
98510
98520
                                                                                                                                                     C98970
              HIST-ERKOH-1.
                                                                                                                                                     C98970
99000
                      MRITE HIST-REC FROM HIST-TITLE.
MOVE HIST-ERR-1 TO HIST-TITLE-1.
MOVE HIST-NO-OF-OBS TO HIST-ERR-2.
WRITE HIST-HEC FROM HIST-TITLE.
                                                                                                                                                    C98970
C98970
99010
99020
                                                                                                                                                    C98970
 99030
49040
                      MOVE : I: TO HIST-FLAG.
GO TO END-HIST.
99050
                                                                                                                                                     C98970
99060
                                                                                                                                                    C98970
             HIST-ERHON-4.
                                                                                                                                                    C98970
99100
                      MOVE HIST-ERR-4 TO HIST-TITLE-1.
MOVE HIST-ERR-5 TO HIST-TITLE-2.
WRITE HIST-REC FROM HIST-TITLE.
                                                                                                                                                     C98970
99110
91120
                                                                                                                                                     C98970
99130
             MOVL :I: TO HIST-FLAG.
GO TO END-HIST.
HIST-EPH-J.
                                                                                                                                                    C98970
C98970
99140
99150
                                                                                                                                                     C98970
99200
99210 MOVE :1: TO HISI-FLAG,
99490 EMU-HIST, EXIT,
/* PLACE CONGL SOURCE BEFORE
//CHG.TFGIN DO *,SP/CEX[CYL,[1,1]]
TFG DT03 11 0202080
                                                                                                                                                     C96970
                                                                                                                                                     C98970
                                                                                                                                                1440 CDS
.FND
                 PLACE TEG DATA PEFORE THIS CARD
12 OU 01SP):OLD:KEEP]:VOL>SER>+F1:UNIT>T+F1
25 DU 01SP):OLD:KEEP]:VOL>SER>+F8:UNIT>T+F8
HIN DU +:SPATE>(TRK;(1:13)
 //TPR. TU12
                                                                                                                                                T12
T25
//TPR.TU25
//TPR.TPHIN
T/P TU12
                        10100202020
                  1100130R000
PLACE T/P CONTRC CARDS BEFORE THIS CARD
T/P TUES
```

6.10 PROGRAMS FOR EFFECT OF TIME AFTER INSPECTION

6.10.1 MEASURE OBSERVATIONS AT AIRCRAFT LEVEL

```
//C9897X JOB 01:: G. WANG. I:PRTY>05
//C9897X EXEC P9627L.TIME>1.ACCT>D35323007
//C9897X JUB
                                                                                  X3408
                                                                            PUT PROGRAM IN LIBRARY
           7X EXEC P9627E.TIME>1.ACCT>D35323007 PUT PROGRAM
INPUT DU -SPACE>(CYL,(1:13)

COMJINE COMPILE 6. WANG
DATE-WRITTEN. 05 APR 72.

RÉMARKS. PHASE II- TASK IV- FORTHAN/COBOL LINKAGE.

MAIN UNIVER- FONTRAN.

INPUT/OUTPUT - COBOL.

ENVIRONMENT DIVISION.
//CHG. INPUT
                                                                                                                        1440 CDS
C98970
                                                                                     G. WANG.
01040
                                                                                                                            C98970
                                                                                                                            C98970
01060
                                                                                                                            C98970
01070
                                                                                                                            C98970
02000
                                                                                                                            C98970
            CONFIGURATION SECTION.
SOUNCE-COMPUTER. IBM-360.
OBJECT-LOMPUTER. IBM-360.
                                                                                                                            C98970
02610
02020
02030
                                                                                                                           C98970
C98970
           INPOT-OUTPUI SECTION.
02160
                                                                                                                            C98970
02110
                                                                                                                            C98970
                  DELECT CARD-FILE ASSIGN TO UT-5-FT04F001

HESLAYF I ALILHNATE AREA.

SELECT CARD-FILE

HESLAYE I ALILHNATE AREA.

ASSIGN TO UT-5-FT08F001

HESLAYE I ALICHNATE AREA.
05150
                                                                                                                             98970
02130
                                                                                                                            C98970
02140
                                                                                                                           C98970
                   SELECT ROUMEP-FILE

NESCHVE 1 ALTERNATE AREA.

SELECT SG-FILE
02160
                                                                    ASSIGN TO UT-S-FT11F001
                                                                                                                            C98970
02170
                                                                                                                            C98970
                                                                    ASSIGN TO UT-5-FT03F001
                                                                                                                            C98970
02160
                  RESURVE 3 ALTERNATE AREA. SELLCI ISG-FILE
02190
                                                                                                                            C98970
                                                                    ASSIGN TO UT-S-FTG1FOG1
02266
                                                                                                                            C98970
           HESLAVE S ALTERNATE AREA.
DATA DIVISION.
02210
                                                                                                                            C98970
10400
                                                                                                                            C98970
10010
            FILL SECTION.
                                                                                                                           C98970
           FU HCD-KH-FILE
13100
                                                                                                                            C98970
                  RECORDING MODE IS F
HLOUK CONTAINS 25 RECORDS
HECORD CONTAINS BU
LABLE RECORDS ARE OMITTED
13120
                                                                                                                            C98970
13130
                                                                                                                            C98970
                                                                   CHARACTERS
                                                                                                                           C98970
13150
                                                                                                                            C98970
13160
                  DATA HECOHDS ARE RCU-KP.
                  HCD-KP SYNC.
                                                                                                                            C98970
C98970
13200
           0.1
13210
                                                          PICTURE XE 80 1.
                  SG-FILEN
SG-FILE
RECURUING MODE IS F
BLOCK CONTAINS 40 RECOMUS
RECURU CONTAINS 70
LABLE RECURUS ARE OMITTED
DATA RELORDS ARE SG-REC.
14100
           FD
                                                                                                                            C98970
14120
                                                                                                                            COROTA
14130
                                                                                                                            C98970
14140
                                                                                                                            C98970
C98970
                                                                    CHARACTERS
                                                                                                                           C98970
C98970
14160
                  SG-HEL SYNC.
UZ FILLER
NSG-FILL
14200
            61
                                                          PICTURE XE70 J.
15100
           FU
                                                                                                                            C98970
                  NSG-FIEL
RECURDING MODE IS F
BLOCK CUNTAINS 40 RECORDS
RECURD CONTAINS 70
LABLE MCORDS AND OMITTED
DATA MCORDS ARE NSG-REC.
NSG-REC SYNC.
                                                                                                                            C98970
15120
15130
                                                                                                                            C98970
                                                                    CHARACTERS
15140
                                                                                                                            C98970
15150
                                                                                                                            C98970
15160
                                                                                                                           C98970
15200
                                                                                                                            C98970
                  U2 FILLER
CARU-FILE
15210
                                                          PICTURE XE70 3.
                                                                                                                           C98970
                                                                                                                           C98970
16100
16120
                  RECOMULIG MODE IS F
BEOCK CUNTAINS 10 RECORDS
RECORD CONTAINS 80
                                                                                                                           C98970
C98970
16140
                                                                  CHARACTERS
                                                                                                                           C98970
C98970
                 LAREL ALCUMUS AME OMITTED
DATA MELOMOS AME CAMD-MEC.
CAMD-MEL SYNC.
U2 FILLEN
0FILEI
16150
                                                                                                                            C98970
16160
           01
16200
                                                                                                                           C98970
16210
                                                          PICTURE XEBU 3.
                                                                                                                            C98970
           FU
                                                                                                                            C98970
17120
                  RECURDING MODE IS F
                                                                                                                           C98970
17130
                  BLOCK CUNTAINS 70 RECORDS
                                                                                                                           C98970
           RECORD CONTAINS 40
LARLE HLCORDS ARE OMITTED
DATA HLCORDS ANE OFILEI-REC.
01 OFILEI-REC SYNC.
02 FILLER PICTL
WORKING-STURAGE SECTION.
17140
17150
                                                                                                                           C98970
                                                                  CHARACTERS
                                                                                                                           C98970
17160
17200
                                                                                                                           C98970
                                                                                                                           C98970
17210
                                                          PICTURE X[46].
                                                                                                                           C98970
30000
                 NINE-40 SYNC.
50130
                                                                                                                           C98970
                                                   C98970
30140
                                                                                                                           C98970
                                                   PICTURE X(15) VALU
1999999999999991.
                  02 FILLER
                                                                            VALUE
                                                                                                                           C98970
                                                                                                                           C98970
30170
```

```
30230
             NINL-BO SYNC.
        10
                                                                                        C98970
                                     PICTURE X(25)
30240
             02 FILLER
                                                        VALUE
                                                                                        C98970
                                       C98970
30250
30260
30270
             02 FILLER
                                     C98970
                               C98970
30280
             02 FILLER
                                     PICTURE XE 30 1
                                                       VALUE
                                                                                        C98970
30290
30310
                                                                                        C98970
             RECURUS-PASS
                                                                                        C98970
30320
30330
        01
                                                                                        C98970
        01
             CARU-CHII
                                                                                        C98970
             CARU-LNI2
30340
        01
                                                                                        C98970
30350
        01
                                                                                        C98970
             SN-101-CNT
30355
        10
                                                                                        C98970
30360
30370
             HCT-KP-CNT
                                                                                       C98970
        10
        10
30380
        01
             LANUINGS-CNT
                                                                                        C98970
30390
        10
             KNT
                                                                                       C98970
C98970
30400
             KOUNT
             SGCNT
                                                                                       C98970
30410
        01
30420
             SG-CHT
                                                                                        C98970
 30500
        10
        0 I
30510
             SG-HCNT
30520
                                                                                        C98970
30530
        01
                                                                                        C98970
             H1-6-611
30540
        10
                                                                                        C98970
30550
             42-6-64F
                                                                                        C98970
            H3-G-CHT
LFLAG
30560
        10
                                                                                        C98970
30600
        0 I
                                                                                        C98970
30610
        01
             CAPU-LOF-SW
30700
        10
                                                                                        C98970
             SGEUF
30710
                                                                                        C98970
                                PICTURE X
30720
        01
             NSGLOF
                                              VALUE :0:.
                                                                                        C98970
33000
        10
             TEST-A SYNC.
                                                                                        C98970
             02 SN-A
                                         PICTURE X[A]
                                                            VALUE SPACE.
33010
                                                                                        C98970
33020
                                                                                        C98970
33100
33110
        01
             TEST-B SYNC
                                                                                        C98970
                                         PICTURE XE81
PICTURE XE31
                                                            VALUE SPACE.
            U2 SN-U
02 WK-U
CAPU-DATA SYNL.
                                                                                        C98970
33120
                                                                                        C98970
39000
        01
                                                                                        C98970
39010
             02
                 TEST-123
                                         PICTURE XX.
                                                                                        C98970
                 DATAI-1
                                         PICTURE XEAJ.
PICTURE XX.
39020
             02
                                                                                        C98970
                 FILLER
39030
            02
02
                                                                                        C98970
                 DATA2-1
                                         PICTURE XEBJ.
                                                                                        C98970
39040
39050
39060
            02
                 ABLANK-1
                                         PICTURE XE41.
PICTURE XC61.
                                                                                       C98970
C98970
                 FILLER
39070
                  1656C1-2
                                         PICTURE S9(3)
                                                                                        C98970
                                         PICTURE X.
39080
             02
                 AHSGC2-2
                                                                                        C98970
                 AUSUC3-2
39090
             02
                                         PICTURE X.
                                                                                        C98970
39100
                 AUSGC4-2
                                         PICTURE X.
             02
                                                                                        C98970
39110
39120
                 FILLER
A1-3
                                         PICTURE XE43.
                                                                                       C98970
             02
             02
                 A2-3
A3-3
A4-3
39130
             Ű2
                                         PICTURE
                                         PICTURE
39140
             02
                                                                                        C98970
                                         PICTURE
                                                                                        C98970
                 A5-3
A6-3
A7-3
39160
             02
                                         PICTURE
                                                                                        C98970
             02
                                         PICTURE X.
39170
                                                                                        C98970
391AU
391AU
                                                                                       C98970
             02
                                         PICTURE X.
             02
                                         PICTURE X.
                 A6-3
39200
39210
             02
02
                                         PICTURE
                                                                                       C98970
C98970
                                         PICTIME XE313.
                 FILLER
40000
             SG-HSU-HEC SYNC.
                                                                                       C98970
        01
                                         PICTURE XESJ.
PICTURE XESJ.
PICTURE XESJ.
40U20
             02
                 SN
                                                                                        C98970
40v30
             02
                 WK
                                                                                        C98970
40040
             02
                 WUC 12
                                         PICTURE XE21.
                                                                                        C98970
                                         PICTURE X.
40050
             02
                 WUCS
                                                                                        C98970
40060
             02
                 WUC4
                                                                                       C98970
                 WUC
40070
                                         PICTURE
                                                                                        C98970
                                         PICTURE X.
             02
40080
                                                                                        C98970
                                         PICTURE X[3].
PICTURE X[3].
PICTURE X[4].
40090
             02
                 HML
                                                                                        C98970
40100
             02
                 UNITS
                                                                                       C98970
40110
            02
                 LAUUR
                 NORM
40120
             02
                                         PICTURE XE31.
                                                                                        C98970
                                         PICTURE XC4].
            02
02
40130
                                                                                        C98970
40140
                 NORS
                                                                                        C98970
                                         PICTURE XC31.
PICTURE XC21.
PICTURE XC11.
PICTURE XC41.
40150
            02
                 U-ATC
                                                                                        C98970
                 FILLER
40160
                                                                                        C98970
40170
             02
                 TYPE-11
                                                                                        C98970
            02
02
02
02
40 I 80
                 FH
                                                                                        C96970
                 SFH
                                         PICTURE X[6].
                                                                                        C98970
40190
                 SEAND
                                         PICTURE XEST.
40200
                                                                                        C98970
40210
                                         PICTURE XC51.
                                                                                        C98970
40220
                 FILLER
                                         PICTURE XE11.
```

```
SN-TOTAL SYNC.
02 CAR-CONTROL
40500
        01
                                                                                            C98970
                                                                                            C98970
40610
                                           PICTURE X
                                                               VALUE SPACE.
40020
             02
                  FH-IOT
                                           PICTURE ZZZZZ9.
                                                                                            C98970
                  FILLER
                                           PICTURE X
                                                               VALUE SPACE.
40630
                                                                                            C98970
             02
40040
                  SORTILS-TUT
                                           PICTURE ZZZZ9
40650
             02
                  FILLER
                                           PICTURE X
                                                               VALUE SPACE.
                                                                                            C98970
                  LANUINGS-TOT
             02
                                           PICTURE ZZZZ9.
                                                                                            C98970
40660
                                           PICTURE X
PICTURE ZZZZZ9.
40670
             02
                  FILLER
                                                               VALUE SPACE.
                                                                                            C98970
             02
                  TYPE-1-TCT
                                                                                            C98970
40680
                  FILLER
                                           PICTURE X
40090
             02
                                                               VALUE SPACE.
                                                                                            C98970
                                           PICTURE ZZZZZZO
                  TYPE-3-TOT
40700
             02
                                                                                            C98970
40710
             02
                                                               VALUE SPACE.
                                                                                            C98970
                  TYPE-4-TOT
                                           PICTURE ZZZZZZO
40720
40730
                                                               VALUE SPACE.
             02
                                                                                            C98970
40740
                  SN-TOT
                                           PICTURE XEBJ.
             02
                                                                                            C98970
40750
             02
                  FILLER
                                           PICTURE X
                                                               VALUE SPACE.
                                                                                            C98970
                                           PICTURE ZZZZZ9.
PICTURE X
PICTURE ZZZZZ9.
40760
                  50-10T
                                                                                            C98970
             02
40770
                  FILLFR
                                                               VALUE SPACE.
                                                                                            C98970
40780
             02
                  NSG-TOT
                                                                                            C98970
                  REC-KP-TC!
                                           PICTURE X[ 15 ]
40790
                                                               VALUE SPACE.
                                                                                            C98970
             RCD-TOTALS SYNC.
40800
        01
                                                                                            C98970
                                           PICTURE X
                                                               VALUE SPACE.
                                                                                            C98970
40810
                  RECORUS-1-NPUT
                                           PICTURE ZZZZZZZO.
40820
             02
                                                                                            C98970
                                           PICTURE X
PICTURE ZZZZZZO.
                                                                                            C98970
C98970
40830
             02
                  FILLER
                                                               VALUE SPACE.
40840
                  OBSERVE-CUT
             02
40845
                  FILLER
                                           PICTURE XESI
                                                               VALUE SPACE.
                                                                                            C98970
             02
40865
             02
                  SU-UTOT
                                           PICTURE ZZZZZZZO.
                                                                                            C98970
                                                               VALUE SPACE.
40870
             02
                  FILLER
                                           PICTURE X
                                                                                            COROZO
                  NSG-GTOT
                                           PICTURE ZZZZZZZO.
                                                                                            C98970
40875
              02
40880
              02
                  FILLER
                                           PICTURE X
                                                               VALUE SPACE.
                                                                                            C98970
                                           PICTURE ZZZZZZZO.
                  P1-G-TOT
                                                                                            C98970
40890
             02
40900
              02
                  FILLER
                                           PICTURE X
                                                               VALUE SPACE.
                                                                                            C98970
                  R2-G-TOT
                                           PICTURE ZZZZZZZO.
PICTURE X VALUE SPACE.
40910
             02
                                                                                            C98970
40920
             02
                  R3-6-TOT
FILLER
                                           PICTURE ZZZZZZO.
PICTURE XE 20 ]
40930
              02
                                                                                            C98970
                                                               VALUE SPACE.
40940
                                                                                            C98970
              02
40980
        01
             HCD-KP-BLNK TYNC.
                                                                                            C98970
             02 FILLER
40990
                                           PICTURE XEAD 1
                                                               VALUE SPACE.
                                                                                            C98970
41000
             HCD-KF -CARD SYNC.
                                                                                            C98970
        01
             02 FILLER
                                           PICTURE XEAD1
                                                               VALUE SPACE.
                                                                                            C98970
41010
             RCT-KP-TAPE SYNC.
                                                                                            C98970
41400
             02 FILLER
0-RLC STNC.
41410
                                           PICTURE XI 80 3
                                                               VALUE SPACE.
                                                                                            C08970
        01
                                                                                            C98970
42000
                                      PICTURE XX
PICTURE XEAD.
42010
                  FILLER
                                                          VALUE SPACE.
                                                                                            C98970
42020
             02
                  SN-U
                                                                                            C98970
42030
                                       PICTURE XEAJ.
                                                                                            C98970
                  FILLER
                                       PICTURE X
421135
             02
                                                          VALUE SPACE.
                                                                                            C98970
42040
                                       PICTURE XE63.
                                                                                            C98970
                  06-1
             02
42045
             02
                  FILLER
                                       PICTURE X
                                                          VALUE SPACE.
                                                                                            C98970
                                       PICTURE XE61.
                                                                                            C98970
42050
             02
                  011-2
                                      PICTURE X
PICTURE XE61.
42055
                  FILLER
                                                          VALUE SPACE.
                                                                                            C98970
                                                                                            C98970
42060
             02
                  0H-5
                  FILLER
                                       PICTURE XX
42065
                                                          VALUE SPACE.
                                                                                            C98970
             02
        02 RCU-MK-0
42070
                  RCU-MK-0
                                      PICTURE X
                                                          VALUE :#I.
                                                                                            C98970
                                                                                            C98970
48000
                       PICTURE S9161
PICTURE S9161
PICTURE S9181
             INTYP
                                                                                            C98970
48010
                                            COMPUTATIONAL SYNC.
                                           COMPUTATIONAL SYNC. COMPUTATIONAL SYNC.
46020
             TEOF I
                                                                                            C98970
48070
                                                                                            C98970
              ISN
                       PICTURE SUL61
PICTURE SUL61
PICTURE X[4].
PICTURE X[4].
48080
              IWK
                                           COMPUTATIONAL SYNC.
                                                                                            C98970
             IWULI 2
                                                                                            C98970
48100
             XWUC3
                                                                                            COROZO
                                                                                            C98970
48110
             XWUC4
                       PICTURE XE43.
                                                                                            C98970
              XWLIC5
48130
                                                                                            C98970
             XWDL
                       PICTURE XC43.
PICTURE S9663
PICTURE S9663
46140
             XHMC
                                                                                            C98970
48150
48160
              TUNITS.
                                           COMPUTATIONAL SYNC.
                                                                                            C98970
              ILABOR
                       PICTURE S9(6)
PICTURE S9(6)
PICTURE S9(6)
48170
        77
              IAIL
                                           COMPUTATIONAL SYNC.
                                                                                            C98970
                                           COMPUTATIONAL
                                                            SYNC.
                                                                                            C98970
              INOHM
46180
46190
              INOHS
                                            COMPUTATIONAL
                                                            SYNC.
                                                                                            C98970
                       PICTURE S9161
PICTURE S9161
PICTURE S9161
PICTURE S9162
PICTURE S9163
PICTURE S9161
PICTURE S9161
PICTURE S9161
PICTURE S9181
PICTURE S9181
PICTURE S9181
PICTURE S9181
             ITYPE
                                           COMPUTATIONAL SYNC.
                                                                                            C98970
48200
        77
                                                                                            C98970
48220
48230
              ISSUPT
                                           COMPUTATIONAL
                                                            SYNC.
                                                                                            C98970
                                                                                            C98970
             ISLANU
48240
                                                            SYNC.
                                            COMPUTATIONAL
                                                                                            C98970
49000
             INI
                                           COMPUTATIONAL
                                                            SYNC.
49010
        77
                                                                                            C98970
             IDATA1
49020
                                                                                            C98970
49030
              SATA01
                                           COMPUTATIONAL
49040
             ABL ANK
                       PICTURE S9[6]
49220
             18SGC1
                                           COMPUTATIONAL SYNC.
                                                                                            C98970
49230
        77
77
             ARSGC2
                       PICTURE XE43.
                                                                                            C98970
             ABSGCJ
                                                                                            C98970
49250
             ARSGC4
                       PICTURE XE43.
                                                                                            C98970
                                                                                            C98970
49300
                            PICTURE XE 41.
```

```
49320
                                 PICTURE X(4).
                                                                                                           C98970
                                 FICTURE X[4].
49330
               IA4
                                                                                                           C98970
               IA5
49340
                                                                                                           C98970
                                 PICTURE XE43.
49350
                                                                                                           C98970
                                 PICTURE XC43.
49360
                IA7
                                                                                                           C98970
                IAB
49370
                                                                                                           C98970
                                 PICTURE X(4).
PICTURE S9(8)
PICTURE S9(6)
PICTURE S9(6)
PICTURE S9(6)
PICTURE S9(6)
PICTURE S9(6)
               149
15NO
 49380
          77
77
                                                                                                           C98970
                                                        COMPUTATIONAL SYNC.
49400
                                                                                                           COASTO
49410
                100
                                                                                                           C98970
49420
                IOR1
                                                        COMPUTATIONAL SYNC.
                                                                                                           C98970
49430
               IURZ
          77 1083 PIC
PROCEDURE DIVISION.
                                                        COMPUTATIONAL SYNC
                                                                                                           C98970
50000
                                                                                                           C98970
          CARUI.
 50010
                                                                                                           C98970
                           :CREAD1: USING INI, ITI, IDATAI, IDATA2, ABLANK.
                                                                                                           C98970
C98970
50012
               FRINT SCHEADS: USING IN; ITI: IDATA

IF EFLAG EQUAL :1: GO TO READ-I.

OPEN UNTPUT 'CO-KP-FILE OFILE1.

OPEN INPUT 3G-FILE NSG-FILE CARD-FILE.

MOVE :1: TO FFLAG.
50020
50030
                                                                                                           C98970
50035
                                                                                                           C98970
                                                                                                           C98970
50040
51000
          REAU-I.
                                                                                                           C98970
51010
                PERFORM READ A-CARD THRU CARD-EXIT.
                IF CARU-EOF-SW EWUAL :1: GO TO READ-1-EXIT. ADD 1 TO CARD-CNT1.
51020
                                                                                                           C98970
51030
                                                                                                           C98970
          MOVE-LINK1.

MOVE UATAZ-I

MOVE ABLANK-T
51100
                                                                                                           C98970
                                     TO IDATA2.
51120
51130
                                                                                                           C98970
C98970
511A0
          REAU-1-EXIT.
MOVE UATA1-1
                                                                                                           C98970
                                    TO IDATAL.
51185
51190
                GORACK.
                                                                                                           C98970
52000
          CARUZ.
                                                                                                           C98970
               ENTHY
                          CRE ID2: USING INI, IT1, IBSGCI, ABSGC2, ABSGC3,
52010
                                                                                                           C98970
                     ABSUC4.
52020
                                                                                                           C98970
52030
                PERFORM READ-A-CARD THRU CARD-EXIT.
                                                                                                           C98970
                IF CARU-EOF-SW EQUAL :1: GO TO READ-2-EXIT. ADD 1 TO CARU-CNT2.
52040
                                                                                                           C98970
52050
                                                                                                           C98970
          MOVE ABSGC4-2
52100
                                                                                                           C98970
                                       TO
                                            IBSGC1.
52110
                                                                                                           C98970
52120
                                      TO
TO
                                             AHSGC2.
                                                                                                           C98970
                                            ABSGC3.
52130
52140
                                                                                                           C98970
                                                                                                           C98970
52180
          REAU-2-LX1T.
                                                                                                           C98970
52190
                GOPACK.
                                                                                                           C98970
                                                                                                           C98970
C98970
53000
          CARUS.
               ENTHY :CREADS: USING IN1. IT1. IA1, IA2, IA3, IA4, IA5, IA6, IA7, IA6, IA7, IA6, IA9.

PERFORM REAT -A-CARD THRU CARD-EXIT.
53010
53020
                                                                                                           C98970
53030
                                                                                                           C98970
53040
               IF CARU-EOF-SW EQUAL III GO TO READ-3-EXIT, ADD 1 TO CARO-CNT3.
                                                                                                           C98970
C98970
53050
53100
          MOVE-EINK3.
                                                                                                           C98970
53110
53120
               MOVE
                                       10
                                            IAI.
                                                                                                           C98970
                                            IA2.
                                                                                                           C98970
53130
53140
                MOVE
                           A3-3
A4-8
                                      TO
TO
                                            IAS.
                                                                                                           C98970
C98970
                MOVE
53150
                MOVE
                           A5-3
                                       TO
                                            IA5.
                                                                                                           C98970
                           A6-3
A7-3
A8-3
                                            IA6.
                HOVE
53160
53170
                                       TO
                                                                                                           C98970
                MOVE
                                            IA7.
                                                                                                           C98970
53180
                                       TO
                HOVE
                                            TAR.
                                                                                                           C98970
                                                                                                           C98970
                MOVE
53280
                                                                                                           C98970
                GOBACK.
                                                                                                           C98970
53290
55000
          TAPLS-IN.
                                                                                                           C98970
                     Y :COPPOL: USING INTYP, IEOFI,
ISN, IWK, IWUCI2, XWUC3, XWUC4, XWUC5, XWDC, XHMC,
IUNITS, ILAUOR, IAIE, INORM, INORS, ITYPE, ISFH,
ISSURT, ISLAND.
55020
               ENTHY
                                                                                                           C98970
                                                                                                           C98970
55022
55024
                                                                                                           C98970
                                                                                                           C98970
55026
         IF INTYP EQUAL NSG-ID GO TO READ-NSG-1.

PERFORM READ-SG THRU READ-SG-EXIT.

IF LOFI EGJAL I GO TO TAPE-EXIT-SG,

ADD 1 TO SG-INT.

MOVE-LINK-SG.
55040
                                                                                                           C98970
55050
                                                                                                           C98970
                                                                                                           C98970
55060
55070
55100
                                                                                                           C98970
C98970
               MOVE SN
                                      ISN.
                                                                                                           C98970
               MOVE WK TO MOVE WUL12 TO MOVE WUC3 TO
                                      IWK.
                                                                                                           C98970
55120
                                 TO
55130
                                                                                                           C98970
55140
                                      XWUC3.
                                                                                                           C98970
               MOVE WULL
55150
                                 TO
                                                                                                           C98970
55160
                                       XWUC5.
                                                                                                           C98970
                                 TO
55170
55180
               MOVE HOL
                                      XWDC .
                                                                                                           C98970
                                 TO
                                 TO
55190
55200
               MOVE UNITS
MOVE LAUGR
MOVE ATE
                                       IUNITS
                                                                                                           C98970
                                       ILABOR.
                                                                                                           C98970
                                 TO
55210
                                       TATE.
                                                                                                           C98970
                                 TO
               MOVE NORM
                                      INORM.
                                                                                                           C98970
55220
55230
                                 TO
               MOVE ITPE-N
MOVE SFII
MOVE SCRT
MOVE SLAND
                                      ITYPE.
55240
                                 TO
                                                                                                           C98970
55250
                                 TO
                                                                                                           C98970
55260
                                       1550RT
                                                                                                           C98970
                                 TO
                                     ISLANU.
                                                                                                           C98970
```

```
TAPL-EXIT-50.
55400
                                                                                                                       C98970
55410
                 GOBACK.
                                                                                                                       C98970
55500
           READ-NSG-1.
                                                                                                                       C989T0
                 PERFORM REAP-NSG THRU READ-NSG-EXIT.
55510
                                                                                                                       C98970
                  IF ILOF1 EQUAL 2 GO TO TAPE-EXIT-NSG. ADD I TO NSC-CNT.
 55520
                                                                                                                       C98970
55530
                                                                                                                       C98970
           MOVE-LINK-NSG.
 55600
                                                                                                                       C98970
55610
55620
                 MOVE 5N
                                          ISN.
                                                                                                                       C98970
                                          IWK.
IWUC12.
                  MOVE WK
                                                                                                                       C98970
                 MOVE WUC12 TO MOVE WUC3 TO MOVE WUC4 TO MOVE WUC5 TO
55630
55640
                                                                                                                       CORSTO
                                         XWUC3.
XWUC4.
XWUC5.
                                                                                                                       C98970
55650
                                                                                                                       C98970
55060
                                                                                                                       C98970
 55670
                  MOVE WUL
                                     TO
                                           XWDC .
                                                                                                                       C98970
55680
                  MOVE HMC
                                     TO.
                                           XHMC .
                                                                                                                       C989T0
55690
                  MOVE UNITS TO
                                           IUNITS.
                                                                                                                       C989T0
                 MOVE LABOR TO ILABOR.

IF TYPE-N ECUAL :4: GO TO BY-PASS-TYPE-4.

MOVE AIE TO IAIE.

MOVE NORM TO INORM.
55/00
55705
                                                                                                                       C98970
                                                                                                                       C98970
5571U
55720
                                                                                                                       C98970
                                                                                                                       C98970
                  MOVE NOKS
                                     TO
                                            INORS.
                                                                                                                       C989T0
55735
55740
55750
55760
           BY-PASS-TYPL-4.
                                                                                                                       C98970
                  MOVE TYPE-N TO
                                           ITYPE.
                                                                                                                       C98970
                                    T0
                                           ISFH.
                                                                                                                       C98970
           MOVE SSORT
MOVE SLAND
TAPE-EXIT-NSG.
                                           ISSORT.
                                                                                                                       C98910
                                                                                                                      C989T0
55770
                                           ISLAND.
55400
                  GOBACK .
55910
                                                                                                                       C98970
57000
57010
           TAPE-01.
                                                                                                                       C98970
                              :COBOUT: USING ISNO, IDO, 1081, 1082, 1083.
ISNC TO SN-0.
IDO TO ID-0.
                  ENTRY
                                                                                                                       C98970
                  MOVE
57040
57050
                                                                                                                       C98970
                                           TO ID-0.
                  MOVE
                                                                                                                       C98970
57060
                  MOVE
                              IOB
                                                                                                                       C98970
57070
                  MOVE
                              IOR2
                                           TO 08-2.
                                                                                                                      C98970
57080
57170
                 WRITE
                              IOBS TO OB-3.
OFILE1-REC FROM O-REC.
                                                                                                                       C98970
                                                                                                                       C98970
57180
57190
                  ADD 1 TO RECORDS-PASS.
                                                                                                                       C98970
                  GORACK.
                                                                                                                       C98970
59800
           READ-A-CARD.
                                                                                                                      C98970
                 U-A-CARD.

REAU CAND-F:LE INTO CARU-DATA
AT FND GO TO CARD-EOF.

IF TEST-123 EQUAL :99: GO TO CARD-EOF.

NOTE DEBLG WRITE CARD IMAGEX XX XX.

WRITE RCD-KP-FROM RCD-KP-CARD.

WRITE RCD-KP FROM RCD-KP-CARD.
59010
                                                                                                                       C98970
59020
                                                                                                                       C98970
59U30
59040
                                                                                                                      C98970
59050
                                                                                                                      C98970
59060
                                                                                                                      C98970
                 ADD 1 TO RCD-KP-CNT.
GO TO CARD-, XIT.
59070
                                                                                                                      C989T0
59090
           CARD-EOF.
CLOSE CARD-FILE WITH LOCK.
MOVE :1: TO CARD-EOF-5W.
59100
                                                                                                                      C98970
59110
                                                                                                                      C98970
59120
                                                                                                                      C989T0
59130
           CARD-EXIT.
                                                                                                                      C989T0
59400
           REAL-SG.
                 READ 5G-FILE INTO SG-NSG-REC
AT LND GO TO SG-EOF.
IF TYPE-N EQUAL :9: GO TO SG-EOF.
59210
                                                                                                                      COAGTO
59220
                                                                                                                      C98970
59230
                                                                                                                      C98970
59290
                 GO TO READ-SG-EXIT.
                                                                                                                      C989T0
           SG-LOF.

CLOSE SG-FILE WITH LOCK.

MOVE 1 10 11 OF1 SGEOF.
59300
59310
                                                                                                                      C98970
59320
                                                                                                                      C989T0
           READ-SG-EXIT.
59330
                                         EXIT.
           REAU-NSG.
59500
                                                                                                                      CORSTA
                 REAU NSG-FI E INTO SG-NSG-REC
AT END GO TO NSG-EOF.
IF TYPL-N EQUAL 14: GO TO NSG-EOF.
59510
                                                                                                                      C989T0
59520
                                                                                                                      C989T0
59530
                                                                                                                      C98910
59590
                 GO TO RLAU-ISG-EXIT.
59600
           NSG-LOF.
                                                                                                                      COROTO
          CLOSE NSG-FILE WITH LOCK,
MOVE 2 TO ILOF1 NSGLOF.
READ-NSG-EXIT. EXIT.
59010
                                                                                                                      C989T0
59620
                                                                                                                      C989T0
59630
                                                                                                                      COBOTO
          BLOCK-CHECK.
ENTRY : CLOSEF:
EOJ-RCD-KEEPING.
61000
61010
                                                USING IT1.
                                                                                                                      C98970
C989T0
61100
                MOVE SU-CN TO SG-GTOT.

MOVE NSU-CN* TO NSG-GTOT.

MOVE CAND-CNT1 TO R1-G-TOT.

MOVE CAND-CNT1 TO R2-G-TOT.

MOVE CAND-C'T3 TO R3-G-TOT.

MOVE CAND-C'T3 TO R3-G-TOT.

COMPUTE RECORDS-READ > CARD-CNT1 < CARD-CNT2 < CARD-CNT3.

MOVE RECORD:-PASS TO OBSERVE-OUT.

WRITE RCD-K" FROM RCD-TOTALS.

ADD 1 TO RCD-KP-CNT.

COMPUTE KOU.T > RECORDS-PASS - [[RECORDS-PASS / 703 + 70].
                MOVE SU-CH
61110
                                          TO SG-GTOT
                                                                                                                      C989T0
                                                                                                                      C98970
61130
                                                                                                                      C98970
61150
                                                                                                                      C98970
61160
                                                                                                                      C989T0
61170
                                                                                                                      C989T0
61180
                                                                                                                      C989T0
61310
                                                                                                                     C98970
62010
```

```
WRITE OFFLET-REC FROM NINE-40.
ADD 1 TO KOUNT.
IF KOUNT 15 LESS THAN 70 GO TO LOOPS.
 62050
                                                                                                        C98970
 62060
                                                                                                        C98970
 62070
                                                                                                        C98970
62100
62115
                                                                                                        C98970
                COMPUTE KNT > RCD-KP-CNT - [ERCD-KP-CNT / 25] . 25].
          WRITE HUD-KI
 62130
                                                                                                        C98970
                                            FRUM NINE-80.
                                                                                                        C98970
 62140
                ADD 1 TO KNY.

IF KNI IS LESS THAN 25 GO TO LOOP4.
 62150
                                                                                                        C98970
 62160
                                                                                                        C98970
         CLOSE SU-FILE WITH LOCK.

TEST-NSGEOF.
                                                                                                       C98970
C98970
64000
 64002
 64004
                                                                                                        C98970
64006
               I-MSGEUF.

1F NSGEOF EQUAL: 0:
CLOSE NSG-FILE WITH LOCK.
CLOSE OFFLET WITH LOCK.
CLOSE RCO-KP-FILE WITH LOCK.
DISPLAY: CARDS IN RECORDS-READ UPON CONSOLE.
DISPLAY: SG IN SG-CNT UPON CONSOLE.
DISPLAY: NSG IN: NSG-CNT UPON CONSOLE.
DISPLAY: NSG IN: NSG-CNT UPON CONSOLE.
GORACK.
                                                                                                        C98970
 64008
                                                                                                        C98970
 64010
                                                                                                        C98970
 64020
                                                                                                        C98970
64030
                                                                                                        C98970
                                                                                                       C98970
 64125
                                                                                                       C98970
                                                                                                       C98970
 64140
                                                                                                       C98970
C98970
64150
                GOBACK.
//CHG.SYSIN DO DATA: LPACE SETRE [ 1:13]
            C8777[R]
57000231 59000164
                                                                                                      STN-ETH
SGNI
                           0
                                                                                                      SGPI
                                           03300
                                                                                                      HPH
                                                                                                    HPH
MAI
PERI
ISO A/C
ISO A/C
ISO A/C
                                           033
                                           03400
   57000236
   57000237
57000243
                       331
   57000244
                        351
                                                                                                      ISO A/C
ISO A/C
ISO A/C
ISO A/C
                       331
324
331
331
   57002545
   58000776
   58000901
   59000002
                       331
331
331
                                                                                                      ISO A/C
ISO A/C
ISO A/C
   59000003
   590000005
   59000106
                       331
331
                                                                                                      150 A/C
   59000010
   59000012
                       331
331
331
331
331
   59000015
                                                                                                      150 A/C
   59000018
                                                                                                      ISO A/C
   59000019
                                                                                                      150 A/C
   59000026
   59000030
   59000054
                                                                                                      150 A/C
                       324
324
334
331
331
324
   59000057
                                                                                                      150 A/C
150 A/C
   59000058
                                                                                                      150 A/C
150 A/C
150 A/C
150 A/C
150 A/C
150 A/C
   sonnoose
   59000104
   590001115
   59000108
   59000110
                       324
324
   59000119
   59000141
   59000143
                       324
   59000144
                       324
                                                                                                     ISO A/C
ISO A/C
ISO A/C
  59000145
                       324
   59000147
                       324
                       324
   59000151
   59000152
                       324
9993347575 354
99909155 354
                                                                                                    LAST
.END
```

C98970

62040

```
//C98971) EXEC P9645G.PARM.ASSY>[MAP.LIST.BCD].
                     PARM.LKLD>:LIST.XREF:.TIME>06.ACCT>D35323007
/SIN DD DAT..SPACE>[CYL/[],1]]
FORTRAN-COBOL LINK TEST. JOHN LINK.
 //ASSY.SYSIN
                                                                                                                                                                         1440 CDS
              19 APRIL 1972
THIS DRIVER CALCULATES OBSERVATIONS FOR GROUPS 1 - 6
THIS PROGRAM GENERATE OBSERVATION DATA TAPES FOR FUTURE ANALYSIS
OBSERVATION TAPE FOR AIRCRAFT LEVEL
                        COLUMN
                                               VALUE
                                                                      DESCRIPTION
AIRCRAFT LEVEL
                          3-10
                                               ZELO
                                                                      NON ISO
                            12
                                                   ı
                                                                     ISO
NORM HOURS / PERIODIC
NORM HOURS / HOURLY POSTFLIGHT
AIE / SORTIE
FH / WEEK
SORTIE / WEEK
LANDING / WEEK
ORIGINS - HOURLY POSTFLIGHT
ORIGINS - MA
ORIGINS - PERIODIC
INDEPENDENT VARIABLE - WEEK
INDEPENDENT VARIABLE - FLIGHT HOURS
INDEPENDENT VARIABLE - LANDING
NIMERATOR OF DEPENDENT VARIABLE
DENOMINATOR OF DEPENDENT VARIABLE
INDEPENDENT VARIABLE
                                                                         150
                        13-14
                                                  02
                                                  0.
                                                  0:
05
                                                  06
                            15
                            16
                                                    ı
                       18-23
25-30
                        32-37
              COMMON SECTION
           COMMON AIE, BLANK, BSGC, CT, CNORM, CSGN, CTYPE, CWK, DCT, DDN,
1 DFH, DICI, DIF H, D. L, UIS, OL, DS, DUMMY, DWK, ENSGWK, ETIME, ETN, HMC,
2 ID, IN, II, IWAY, NFSG, NORS, NSGC, NSGCFH, NSGCL, NSGCS, NSGFOF, NSGF,
3 NSGHK, HSGN, NSGMORS, NSGW, NSGWK, NSGWUC, DAIE, OF ILEI, OUT, PDATA,
4 PIDATA - , PISGWA, PPI, PS, PSGCFH, PSGCL, PSGCS, PSGDL, PSGR, PSGL,
5 PSGWK, PTN, PWKI, LETIME, SGCFH, PSGCL, SGCS, SGEOF, SGF, SGFH, SGHR, SGL,
6 SGKI, SGNORM, SGPT, SGSN, SGWK, SGWUC, SSN, SSSWK, SSTIME, SSTNO,
            75TIME, STH, TYPE, WUC
DIMENSION SECTION.
                  ............
                                                          UIMENSION
                PWK1(3), SGN1(2), SGWUC(4)
              DIMENSION BSGC(4.3)
              TYPE SPECIFICATION SECTION
                 _______
           INTEGER AIE, BLANK, BSGC, CBSGI, CI, CNORM, CSGN, CTYPE, CWK, DCT, DDN,
1 DFH, DICT, UIFH, D'L, DIS, DL, DS, DUMMY, DWK, ENSWWK, ESGWK, ETIME, ETN, HMC,
2 ID, IN, IT, IWAY, NNSG, NORS, NSGCC, NSGCCH, NSGCC, NSGCOF, NSGF,
               NSGHRINSGNINSGNINNSGNINNSGUINSGWK, NSGWC, OAIE, OFILEI, OUT, PDATA,
PIDATA , PNSGW), PPI, PS, PSGCFH, PSGCL, PSGCS, PSGDL, PSGI, PSGK, PSGL,
PSGWK, PTN, PAKI, SETIME, SGCFH, SGCL, SGCS, SGEOF, SGF, SGFH, SGHR, SGL,
                SGN1.SGNORM.SGP1.SGSN.SGU.SGWK.SGWUC.SSN.SSSWK.SSTIME.SSTNO.
            75TIME, STN, TYPE, WLC
              HEAD IN LAND INPLY DESCRIPTION FOR GROUPS 1-6
              CALL CINI
C
                                               POSITION THE SONUC FILE FOR THE FIRST TIME ONLY
              REAU A SUPPORT GENERAL RECORD FROM THE DATA BANK VIA COBOL ON SOF
              TYPE = 1
    300 CALL COP1
    CALL CDF1
CHECK TAIL NUMBER AGAINST 99999999 ERROR
IF (SGSN - 99999999 9) 305-10000,305
CHECK FNU OF FILE FOR ERROR
305 IF (SGFOF) 10000,310:10000
CHECK TAIL NUMBER AGAINST STARTING TAIL NUMBER
310 IF (SGSN - SIN) ,00:320:320
READ A NON-SUPPOPT GENERAL RECORD FOR FIRST TIME
C
C
C
     320 1YPE = 2
   J20 IYPE = 2
CALL CDB1
CHECK TAIL NUMBER AGAINST 99999999 ERROR
IF (NSGSN - 9999999) J25,10000, 325
CHECK END OF FILE FOR ERROR
J25 IF (NSGEDF) 1000, 330,10000
POSITION THE SG FILE
J30 CALL SGPUST
FIND END OF INITIAL INSPECTION
FIND END OF CURRENT INSPECTION
J35 CALL FESGI
CHECK FORBPREVIOUS INSPECTION FLAG
IF (PSGI) J40,340,805
C
С
C
C
              IF (PSGI) 340,340,805
SAVE REQUIRED DATA FROM THE SG RECORD
c
```

```
340 PDATA(1) = PSGWK
POATA(2) = PSGCFH
            PDATA(3) = PSGCS
PDATA(4) = PSGCL
            BOO CONTINUE
CHECK TO SEE IF INSPECTION IS A PERIODIC
BOS IF (LMK(SGPI)) Alloabiloal7
CHECK IF THERE WAS EVER A PERIODIC
BIU IF (PPI) 825-825-820
C
C
    SIU IF (PPI) RED-RED-RED

SAVE LAST PERIODIC INFORMATION

BIT PPI = 1

PS = PSGLS

PIDATA(1) = PSGUK

PIDATA(2) = PSGCF +

PIDATA(2) = PSGCF +

PIDATA(3) = PSGCF
C
            PIDATA(3) = PSGCS
PIDATA(4) = PSGCL
   LALCULATE GROUPS 3,4+5+6
820 CALE FENSOI
WAS THERE A PREVIOUS INSPECTION
825 IF (PSGI) 900+900+830
C
            DO NORM DATA
 C DO NORM DATA
830 CALL VARITZ
900 P5G1 = C1
C CHECK FOH CHANGE IN TAIL NUMBER
IF (PTN - SGSN) 1700/920/1000
920 IF (PTN - NSUSN)1000/930/1000
C CHECK FOH END OF TIME
930 IF (SETIME - SGWK: 1100/950/950
950 IF (SETIME - NSGWY) 1100/335/335
TEST TAIL NUMBER AGAINST BLOCKING FLAG
1000 IF (SGSN - 9999999) 1015/11000/11000
1015 IF (SGEOF) 11000/020/11000
C
  1020 IF (NSGSN - 99995 399) 1025,11000,11000
  1020 IF (NSGSUF) 11000:1029:11000;

1025 IF (NSGSUF) 11000:1029:11000;

CHECK FOR LAST TAIL NUMBER

1029 IF (NSGSU - ETN) 1030:1030:11000

1030 IF (SGSN - E[N) 1040:1040:11000

1040 IMAY = 1
  60 TO 330
60 TO 330
10000 CONTINUE
#R11c (6,10010)
10010 FOHMAT (7H STOP)
60 TO 11010
11000 CONTINUE
#RITE (6.11005)
11005 FORMAT (7H STOP4 )
11010 CONTINUE
             1T1 = 0
            LALL CLOSEF
                                         (111)
            CALL EUJMSG
            CALL EXIT
            E.Nil
             SUBROUTINE CINI
            THIS SUPROUTINE READS IN THE MODEL DEFINITION FOR GROUP 1 ALSO BASIC INITIALIZATION
            COMMON SECTION
          SUNI, SGNORM, SEP., SGSN, SGU, SUWK, SGWUC, SSN, SSSWK, SSIIME, SSTNO,
          CNORM(2) . CWK(3) . NSGWUC(4) . PDATA(4) . PIDATA(4) .
            DIMENSION
              PWK1(3), SGN1(2), SGWUC(4)
            UIMENSION USGC(4.3)
             TYPE SPECIFICATION SECTION
          TYPE SPECIFICATION SECTION
INTEGER AIE, BLANK, RSGC.CBSGI, CI.CNORM, CSGN.CTYPE.CWK, DCT, DDN.
I DFH, DICT, DIH H, DIL, DIS, DL.DS, DUMMY, DWK, ENSWWK, ESGWK, ETIME, ETN, HMC.
I ID, IN, II, IWAY, NN. GO, NORS, NNSGCH, NNSGCL, NNSGCS, NNSGOF, NNSGF, NNSGH, NNSGN, NNSGN, NNSGU, NNSGWK, NNSGWL, OAIE, OF ILE1, OUT, PDATA,
PIDATA , PNSGWK, PPI, PS, PSGCFH, PSGCL, PSGCS, PSGDL, PSGI, PSGK, PSQL,
PSGWK, PTN, PKKI, SZITME, SGCFH, SGCL, SGCS, SGEOF, SGFM, SGFM, SGHR, SGL,
             SGNI, SGNORM, SGPI, SGSN, SGU, SGWK, SGWUC, SSN, SSSWK, SSTIME, SSTNO,
          75TIME, STN, TYPE, WOC
```

```
BASIC INITIALIZATION SECTION INITIALIZE FILE NUMBERS OF ILL1 = I
           IN = 5
OUT = 6
            GF = 11
           NSGF = 12
INITIALIZE FLAGS
            NSGEOF = 0
            1WAY = 1
            NSGOC = 3
            17 = 1
                                                                CAND INPUT DEFINITION SECTION
       THE FOLLOWING COMMENI TELL HOW YOU READ DATA IN VIA FORTRAN HEAD IN STARI WEEK AND END WEEK OF ANALYSIS READ IN A BLANK FIELD HEAD (IN,5) STIME ETIME, BLANK 5 FORMAT (2110,44) READ IN IALLNUMRER RANGE HEAD (11,5) STN,ETN HEAD IN SUPPORT CENERAL NORM INDICES READ (11,5) SCONI(1), I=1, NNSG) HEAD IN SUPPORT GENERAL PERIODIC INDEX READ (IN,5) SOP! READ IN BASIC SUPPORT GENERAL CODES DO 50 1=1, NSGUC
            00 50 1=1 NSGUC
          READ (1N,15) (HSCC(J,1),J=1,4)
FORMAT (12,3A1)
      50 CONTINUE
           HEAU IN FIRS) AIRCRAFT SUBSET INFORMATION
           READ (IN.5) STHE SSSWK
           THE FOLLOWING IS HOW YOU READ CARD INPUT VIA COBOL LINKAGE
READ IN START WEL; AND END WEEK OF ANALYSIS
REAU IN A BLANK FYELU
CALL CREADI
         1 (IN, IT, STIME, ET14E, BLANK)
READ IN TAILHUMBER RANGE
c
           CALL CREATI
         1 (IN, IT, STN, ETN, DUMMY)
READ IN SUPPORT GENERAL NORM INDICES
c
           CALL CHEADS
         I (IN, IT, SGNI(1), SGNI(2), DUMMY)

READ IN SUPPORT GENERAL PERIODIC INDEX

CALL CREAD1

I (IN, IT, SGP1, DUMMY, DUMMY)
C
           REAU IN BASIC SUPPORT GENERAL CODES
            60 50 1=1.NSGBC
     CALL CREAD2
1 (1N,17,USGC(1,1),BSGC(2,1),USGC(3,1),BSGC(4,1))
50 CONTINUE
           HEAD IN FIRST ATPCRAFT SUBSET INFORMATION
           CALL CREAD1
     1 (IN.IT.SSTNO.SSS.W.DUMMY)
1F (IT = 3) 65.60.65
60 CALL CREAD3
         I (IN, IT, DUMMY, DUMMY, DUMMY, DUMMY, DUMMY,
                                     DUP 4Y . DUMMY . DUMMY . DUMMY )
     65 CONTINUE
          RETURN:
           SUBROUTINE CUB1
THIS SUBROUTINE CALL A COPOL SUBROUTINE TO READ THE DATA BANK
            COMMON SECTION
         COMMON SECTION

COMMON ALE, RLANK, BSGC, CBSOI, CI, CNORM, CSON, CTYPE, CWK, DCT, UDN,

DFH, DICT, UJFH, DIL, DIS, DL, US, DUMMY, DWK, ENSOWK, ESGWK, ETIME, ETN, HMC,

ID, IN, II, IWAY, NNSG, NORS, NSGEC, NSGCFH, NSGCL, NSGCS, NSGEOF, NSGF,

NSGHR, NSGN, NSGNC, 4, NSGSN, NSGU, NSGWK, NSGWLC, OAIE, OF ILEI, OUT, PDATA,

PIUATA , PISGWK, PPI, PS, PSGCFH, PSGCL, PSGCS, PSGDL, PSGI, PSGK, PSGL,

PSGWK, PTN, PAKI, SCTIME, SGCFH, SGCL, SGCS, SGEOF, SGF, SGFH, SGHR, SGL,
         6 SUNI, SGNORM, SGPI, SGSN, SGU, SUWK, SGWUC, SSN, SSSWK, SSTIME, SSTNO, 7511ME, STN, TYPE, WC;
            DIMENSION SECTION
            CNORM(2) + CWK(3) + NSOWUC(4) + PDATA(4) + P1DATA(4) +
           WIMENS 10H
          I PWK1(3), SGN1(2), 'GWUC(4)
           DIMENSION BSGC(4.3)
TYPE SPECIFICATION SECTION
```

```
C
                      INITUE A AIE, RLANK, BSGC, CBSGI, CI, CNORM, CSGN, CTYPE, CWK, DCT, DDN,

1 DFH, DICI, JIHH, DICI, DIS, DLANK, BSGWK, ESGWK, ETIME, ETN, HMC,

2 ID, 111, 11, 1WAY, NN, 3G, NONS, NSGBC, NSGCFH, MSGCL, NSGCS, NSGCOF, NSGF,

3 NSGHK, PISGN, NSGON, MSGSN, NSGON, NSGWC, NSGCS, PSGDL, PSGT, PS
                         75TIME, STN, LYPE, WOT
                          GO IO (IU+10U)+TYPE

READ A SUPPORT GENERAL RECORD
               10 CALL CORROL

• (SGF.SGEOF.SGSN. GGWK.SGWUC(1).SGWUC(2).SGWUC(3).SGWUC(4).DUMMY.

    DUEMY, SGU, SUHK, DUMMY, SGNORM, DUMMY, SGFH, SGCFH, SGCS, SGCL)
    CHECK NORM HOURS

               IF (SGNORM) 20,40 40
20 SGNORM = 0
                40 KETUKN
          REAU A NUN-SUPPORT GENERAL RECORD
100 CALL COBHCT
  C

    (Nygf; Nyglof; Nyggyn, Nygwk, Nygwuc(1), Nygwuc(2), Nygwuc(3), Nygwuc(4),
    wuc, HMC, Nygu; Nygu; Nygu; Nygun, Nyg
                            RETURN
                           END
                            SUBROUTINE SUPOSI
                            THIS SUPROUTINE POSITION SE FILE FOR NEW AIRCRAFT SUBSET PEPENDING
                            OH IMAY FOR GROUP'S I-6
                             . . . . . . . . . . . . . . . . . . .
                       COMMON ALE-RL NK-NSGC-CHSGI-CI-CNORM-CSGN-CTYPE-CWK-DCT-DDN,
1 DEH-G(ICI-DIEH-DII-DIS-DL-DS-DUMMY-DWN-ENSGWK-ESGWK-ETIME-ETN-HMC.)
2 ID-IN-II-IW-4Y-NN-G-NONS-NSGHC-NSGCEH-NSGCL-NSGCS-NSGGE-NSGR-
3 NSGHM-NSGNO-'NSGSN-NSGW-NSGWK-NSGWU-OAIE-OFILEI-DUT-PDATA,
4 PIDATA PRISGWK-PPI-PS-PSGCEH-PSGCS-PSGGL-PSGI-PSGK-PSGL
                       5 PSGWK.PTN.PAKI.SETIME.SGCFH.SGCL.SGCS.SGEOF.SGF.SGFH.SGHR.SGL.
                       6 SUNI.SGNORM.SGPI.SGSN.SGU.SGWK.SGWUC.SSN.SSSWK.SSTIME.SSTNO.
                        75TIME, STN, TYPE, WOT
                          UIMENSION SECTION
                           DIMENSION.
                                                                                                         CNORM(2),CWK(3),NSGWUC(4),PDATA(4),PIDATA(4),
                       1 PWK1(3), SUIL(2), GWUC(4)
                            DIMENSION BSGC(4, 3)
                            TYPE SPECIFICATION SECTION
                                                                   ALE , RL NK , BSGC , CBSGI , CI , CNORM , CSGN , CTYPE , CWK , DCT , DDN ,
                       1 DFH.DICT.UIFH.DI'.DIS.DL.DS.DUMMY.DMN.ENSGWK.ESGWK.ETIME.ETN.MMC.
2 ID.IN.IT.IWAY.NNSG.NORS.NSGUC.NSGCFH.NSGCL.NSGCS.NSGEOF.NSGF.
3 MSCHR.NSGN.MSGN.NSGU.NSGWK.NSGWC.OAIE.OFILEI.OUT.PDATA.
                      4 PILATA PRISONE PPI.PS.PSGCFH.PSGCL.PSGCS.PSGL.PSGI.PSGK.PSGL.
5 PSGRK.PTN.PWKI.STIME.SGCFH.SGCL.SGCS.SGEOF.SGF.SGFH.SGHR.SGL.
6 SUTI.SGNORM.SGPI.SGSN.SGU,SGWK.SGWUC.SSN.SSSWK.SSTIME.SSTNO.
75IImc.STIMITYPE.WD.
                            INITIALIZE PHENTO'S WEEK INDICES TO -1
                                                                                                                                                                        *-+-+-+-+-+-+-+-+-+-+-+-+-+-
                           SET PSGI TO ZERO
 C
                          PSG1 = 0
SET PPI 10 ZLRO
  c
                          PPI = 0
INITIALIZE PREVIOUS WEEK INDICES TO -1
c
         00 300 1=1.45GRC
PWKI(1) = -1
300 CONTINUE
                           GO TO (320, 525), 1 /AY
        ENTER HERE FOR BEGINNING OF NEW AIRCRAFT
INITIALIZE AIRCRACT START TIME

320 SSTIME = STIME
INITIALIZE AIRCRACT SUBSET NUMBER
c
                          550 = 1
C
                            SAVE PREVIOUS TAL NUMBER
                         PTN = SGSN
CHECK IF TAILNIMBER SUBSET EXIST
c
                          IF (SGSN -SSTNO) 331:332:330
                       LNTER HERE FUR REFINNING OF AIRCRAFT SUBSET
UPDATE AIRCRAFT SUBSET NUMBER
SSN = SSN + 1
INITIALIZE AIRCRAFT SUBSET START TIME
SSTIME = SSSWK
READ IN SUBSET INFORMATION
REAL (110.35) SCTM: SSCWK
C
C
C 330 HEAD (111,35) SSTN , SSSWK
C 35 FORMAT (2110,44)
        1 (IN. IT. SSING. SSS.K. DUMMY)
                         CHECK FOR CHANGE 'N IAIL NUMBER
IF (SUSN -SSTNO) 331,332,320
INITIALIZE AIRCRAFT END LIME
c
C
```

```
331 SETIME = ETIME
         GO TO 340
          SET END TIME OF SUBSET
   332 SETIME = SSSWK
CHECK WELK NUMBER AGAINST STARTING WEEK
340 IF (SGWK - SSTIME) 345:349:349
HEAD A SUPPORT GENERAL RECORD FROM THE DATA BANK VIA COBOL ON SOF
c
         CALL COBI
   CALL COBI
CHECK BLOCKING FLAG
IF (SGSN - 99999999) 347,10200,347
CHECK FOR END OF 'NFORMATION (EOF)
347 IF( SGEOF) 10200,340,10200
c
   CHECK FOR CHANGE IN TAIL NUMBER
349 IF (SGSN - PTN) 3(0:350:320
CHECK IF A SUBSET EXISTS
c
   350 IF (SGSN - SSTNA) 352,351,320
         CHECK ENUTIME
   J51 IF (SLTIME - SGWK, 325,325,360 CHLCK ENDTIME
c
   352 IF (SLTIME - SGWK) 345,345,360
FIM) NEXT LEGAL SGWDC
c
   360 CALL FLSU1
RETURN
10200 CONTINUE
WRITE (6,10210)
10210 FORMAT (13H SGEOF STOP2 )
         171 = 0
         CALL CLOSEF (IT1)
CALL COJMSG
         CALL EXIT
         END
         SUBHODTINE FLSGI
THIS SUBRODTINE F.NDS A LEGAL SGWUC
         COMMON SECTION
         COMMON AIE.BL.NK.BSGC.CBSGI.CI.CNORM.CSGN.CTYPE.CWK.DCT.DDN.
1 DFH.DICT.UIFH.DI',DIS.DL.DS.DUMMY.DWK.ENSGWK.ESGWK.ETIME.ETN.HMC.
2 ID.IN.IT.IWAY.NNSG.NOHS.NSGBC.NSGCFH.NSGCL.NSGCS.NSGEOF.NSGF.
       3 Naghratisgna Asgnom, Naghiansgu Nisgwa, Nisgwa, OATE OF TLE LOUT, PDATA.
4 PIDATA PNSGWA. PPI PS. PSGCFH, PSGCL, PSGCS, PSGDL, PSGI, PSGK, PSGL.
5 PSGWK, PTN, PWKI, SFTIME, SGCFH, SGCL, SGCS, SGEOF, SGF, SGFH, SGHR, SGL.
       6 SGNI.SGNORM.SGPI.SGSN.SGU.SGWK.SGWDC.SSN.SSSWK.SSTIME.SSTNO.
       75TIME .STN. TYPE . WDC.
         DIMENSION SECTION
         UIMENSION CNORM(2),CWK(3),NSGWUC(4),PDATA(4),PIDATA(4),
         DIMENSION
          PWK1(3),SGN1(2),SGWUC(4)
         DIMENSION BSGC(4.2)
TYPE SPECIFICATION SECTION
       INTEGER ALE, BL. NK, BSGC, GBSGI, CI, CNORM, CSGN, CTYPE, CWK, DCT, DDN, IDFH, DICT, DIFH, DIS, DL, DS, DUMMY, DIK, ENSGWK, ESGWK, ETIME, ETN, HMC, 2 ID, IN, IT, IWAY, NNSG, NORS, NSGBC, NSGCFH, NSGCL, NSGCSF, NSGEF, NSGF,
          75TIME , STN , TYPE , WDC
         360 UO 369 C:0561 = 1:NSGBC
CHECK ALL CHARACTERS OF SGWUC
UO 365 1=1:4
IF (BSGC(1:CB5G1) - SGWUC(1)) 362:365:362
362 IF (BSGC(1:CB5G1) - BLANK) 369:410:369
  360 UO 369
   365 CONTINUE
         60 TO 410
   369 CONTINUE
         ENTRY FNLSGI
         TYPE = I
REAU A SG HECORD
         CALL COB1
CHECK TAIL NUMBER AGAINST 9999999 PADDING OF LAST LAST BLOCK
         IF (565N - 9999999) 375,405,375
         CHECK FOR EUF
C
   375 IF (SGEOF) 400,360,400
```

```
SET TAIL NUMBER TO 99999999
       400 56511 = 99999999
       405 CASUL = GSGBC + I
                   CI = CHSUI
                   HETURN
                   END
                    SHUROUTING FLSGI
                    THIS SUPROUTING FINDS THE END OF THE CURRENT INSPECTION AND
 C
                    SUMS UP THE HORM : OURS
                     COMMON SECTION
                     LOMMON ALE.RC.NK.BSGC.CBSGL,CL.CNORM.CSGN.CTYPE.CWK,DCT,DDN.
DFH.DLCT.DIFH.DL(,DLS.DL.DS.DUMMY.DWK.ENSGWK.ESGWK.ETIME.ETN.HMC.
ID.IN.LT.L*AY.NKSG.NORS.NSGBC.NSGCFH.NSGCL.NSGCS.NSGEOF.NSGF.
                   COMMON
                      NSGHR, NSGN, NSGNOM, NSGN, NSGW, NSGWC, ORIC, OFFICET, OUT, PDATA, PIDATA PNSGWK, PFI, PS, PSGCFH, PSGCL, PSGCS, PSGDL, PSGI, PSGK, PSGL, PSGWK, PTH, PWKI, SFTIME, SGCFH, SGCL, SGCS, SGEOF, SGF, SGFH, SGHR, SGL,
                6 SGN1,SGNORM,SGP1,SGSN,SGU,SGWK,SGWUC,SSN,SSSWK,SSTIME,SSTNO,75TIME,STN, TYPE,WUL
                   UIMLNSION SECTION
                     DIMENSION
                                                                            CNORM(2), CWK(3), NSGWUC(4(,PDATA(4(,PDATA(4),
                1 PWK1(3(,56)1(2), GWUC(4)
DIMENSION USGC(4,7)
                    TYPE SPECIFICATION SECTION
                    ****************************
                INTEGER ALE, RE, NK, BSGC, CHSGI, CI, CNORM, CSGN, CTYPE, CWK, DCT, DDN,
I DFH, DICT, DIFH, DII, DIS, DL, DS, DUMMY, DWK, ENSGWK, ESGWK, ETIME, ETN, HMC,
2 ID, IN, IT, IWAY, NNSG, NORS, NSGHC, NSGCFH, NSGCL, NSGCS, NSGEOF, NSGF,
                3 NSGHR, NSGN, NSGNON, NSGSN, NSGU, NSGWK, NSGWC, OAIE, OFILE1, OUT, PDATA,
4 PIDATA , PNSGWK, PPI, PS, PSGCFH, PSGCL, PSGCS, PSGDL, PSGI, PSGK, PSGL,
                FIGURE TO SERVICE STATE OF THE SECTION OF THE SECTI
                75TIME, STN. TYPE, WDC
                    INITIALIZE CURRENT WEEK INDICES
          10 UO 15 1=1.NSGRC
CAK(1)= -1
          15 CONTINUE
                   INITIALIZE SUM OF NORM HOURS CNORM(I( = 0
 C
                   CNORM(2) = 0
SAVE LAST SG RECORD INFORMATION
          20 PSGWK = SGWK
                   PSGCFH = SGCFH
PSGCS = SGCS
                   PSGCL = SGCL
CWK(CI) = SGWK
          CHECK TO SEL IF NORM HOURS EXIT

IF (CI = SGNI(I)) 60.50.60

50 CNORM(I) = CHORM(I) + SGNORM
         GO TO AO
60 IF (CI - SUNI(2)( 80.70.80
70 CNORM(2( = CNORM(2) + SGNORM
FIND NEYT LEGAL S WUC
 C
         PIND NEXT LEGAL 5 WOC

80 CALL FNLSGI

IF (SGW - SETIME) 85,300,300

R5 IF (PIN - SGSN( J00,88,300

CACCULATE DIFFERLICE IN WEEK FIELD FOR CONSECTIVE SG RECORDS
 C
         88 UWK = SGWK - PSGWF
    88 UWX = SGWK - PSGWY
CHICK FON CHANGE 'N WEEK
IF (DWX) 300,20,90
IS PHEVLOUS SG INLEX =3(3400),
90 IF (PSGI-3) 95,100,95
IS DIFF, IN WEEKS MORE THAN 2,
95 IF (DWK-3) 20,200,200
IS DIFF, IN WEEKS MORE THAN 4.
100 IF (DWK-5) 20,200,200
CHECK CWK
c
C
    240 CONTINUE
                ESGWK = PSGWK
      300 CONTINUE
      IF (LI - SUHI(I() 360.350.360
350 CHOHM(I) = CHOHM(I( + SGNORM
     GO TO 380

360 IF (C1 - SUNITED) 380,370,380

370 CHORNES = CHORM(2) + SGNORM

380 ESURE = SETIME + *
                  RF. TUHN
                 END
```

```
SUBHOUTINE FLNSG: (HIS FINUS LEGAL NSG RECORD TYPE 3
           COMMON SECTION
COMMON AIE, BELL NK, BSGC, CBSGI, CI, CNORM, CSGN, CTYPE, CWK, DCT, DDN,
         DFH:DICI:DIFH:NIL:DIS:DL:DS:DUMMY:DMK:ENSGWK:ESGWK:ETIME:ETN:MMC.

IU:IH:II:IWAY:NNSG:NORS:NSGBC:NSGCFH:NSGCL:NSGCS:NSGCOF:NSGF;

NSGHR:NSGH:NSGH:NSGH:NSGWK:NSGWC:OAIE:OFILE::OUT:PDTA:

PIUATA :PNSGWK:PI:PS:PSGCFH:SGCL:PSGCS:PSGDL:PSGK:PSGH:SGHR:SGH.

PSGWK:PIN:P*KI:SETIME:SGCFH:SGCL:SGCS:SGEOF:SGFH:SGHR:SGL.
             SUNI, SGNORM, SGPI, SGSN, SGU, SGWK, SGWUC, SSN, SSSWK, SSTIME, SSTNO,
         7STIME, STN, TYPE, WDC
                                             DIMENSION SECTION
            CNORM(2) . CWK (3) . NSGWUC (4) . PDATA (4) . PIDATA (4) .
         1 PWK1(3), SGN1(2), SGWUC(4)
DIMENSION BSGC(4,3)
           TYPE SPECIFICATION SECTION
            INTEGER AIE, BLANK, BSGC, CBSGI, CI, CNORM, CSGN, CTYPE, CWK, DCT, DDN,
1 DFH, DICT, DIFH, DIL, DIS, DL, DS, DUMMY, DWK, ENSGWK, ESGWK, ETIME, ETN, HMC,
2 ID, IN, I(, IWAY, NNS, ), NORS, NSGCC, NSGCCH, NSGCL, NSGCS, NSGCOF, NSGF,
         3 NSGHR, NSGN, NSGNOM, NSGSN, NSGU, NSGWC, OAIE, OFILEI, OUT, PDATA, PIUATA , PNSGWK, PPI, PS, PSGCFH, PSGCL, PSGCS, PSGDL, PSGI, PSGK, PSGL,
            PSGHK, PIN, PHKI, SETIME, SGCFH, SGCL, SGCS, SGEOF, SGF, SGFH, SGHR, SGL,
         6 SGMI.SGNORM.SGPI.SGSN.SGU.SGWK.SGWC.SSN.SSSWK.SSTIME.SSTNO.7STIME.STN.TYPE.WOC
C
           CHECK BLOCKING FLAG
   350 IF (NSGSN - 99999999) 355-805-355
CHECK FOR END OF INFORMATION
C
   355 IF (NSGEUF) 800.369.800
CHECK FOR TYPE 3 RECORD
360 IF (CTYPE - 3) 370.380.370
c
    370 TYPE = 2
           CALL CDRI
GO TO 350
CHECK FOR CHANGE IN TAIL NUMBER
C
   JBD IF (NSGSN - PTN) 370:390:805
CHECK WEEK FOR PAS; END OF CURRENT SG
390 IF (NSGWK - LSGWK) 370:370:400
CHECK WEEK PLEFORE THE START OF NEXT INSPECTION
400 IF (NSGWK - SGWK) 410:410:810
c
C
   FIND OBSERVATION DATA AND OUTPUT SAME
41D CALL VARITO
SAVE PREVIOUS WEEK
C
           PNSGWK = NSGWK
PS = NSGLS
¢
           KEAD A NON-SUPPORT GENERAL RECORD
  TYPE = 2

420 CALL CDR1
CHECK FOR CHANGE IN TAIL NUMBER
IF (NSGSN - PTN) 810.430.810
CHECK FOR CHANGE I.J WEEK

430 IF (PNSGWK - NSGWK) 440.420.440
CHECK FOR (YPE 3 HECORD

440 IF (CTYPE - 3) 420.400.420

800 NSGSN = Y994Y999

805 ENSGWK = SETIME + I

810 CONTINUE
           TYPE = 2
           KETURII
           FNU
           SUBHOUTINE VAKE THIS SUBHOUTINE CALCULATES THE FIRST 6 DEPENDENT VARIABLES
            LOMMON AIE BLANK, BSGC, CUSGI, CI, CNORM, CSGN, CTYPE, CWK, DCT, DDN,
DFH, DICT, UIFH, DIL, DIS, DL, DS, DUMMY, DWK, ENSGWK, ESGWK, ETIME, ETIME, ETYN, HMC,
ID, IN, IT, IWAY, NNS 3, NOKS, NSGBC, NSGCFH, NSGCL, NSGCS, NSGEOF, NSGF,
NSGHR, NSGN, NSGNOM, NSGSN, NSGU, NSGWK, NSGWUC, OAIE, OF ILE 1, OUT, PDATA,
           LOMMON
         4 PILATA .PNSGWK.PPI.PS.PSGCFH.PSGCL.PSGCS.PSGDL.PSGI.PSGK.PSGL.
5 PSGWK.P(N.P&KI.SETIME.SGCFH.SGCL.SGCS.SGEOF.SGF.SGFH.SGHR.SGL.
6 SGMI.SGNOHM.SGPI.SGSN.SGU.SGWK.SGWUC.SSN.SSSWK.SSTIME.SSTNO.
         75TIME , STN , TYPE , WDC
          UIMENSION SECTION
                                            DIMENSION
         1 PWK1(3), SUNI(2), SGWUCI4)
           DIMENSION USGC (4,3)
TYPE SPECIFICATION SECTION
C
```

```
C
          ENTRY VARITS
SAVE TAIL NUMBER
IPTN = PTN
 C
           ZENO OUT PREVIOUS TAIL NUMBER
          PIN = 0
           UCT =(PSGWK - PDA\A(1)) * 10
UFH = PSGCEH - PDFTA(2)
           US = (PSGCS - PDATA(3)) * 10

UL = (PSGCL - PDATA(4)) * 10

UO 600 I=I*NNSG

CHECK IF NORM DAT/ EXISTS
  r
    K=SUNI(I)

1F (CWK(K)) 000.600.100

100 UO 590 J=1.NSG0:

1F (PWKI(J)) 590.490.400
OUTPUT OUSERVATIONS
    590 CONTINUE
          PDATA(1) = PSGWK
         800 CONTINUE
         RESTORE TAIL NUMBER PTN = IPTN
 C
          RETURN
         ENTRY VARSTO
SAVE TAIL NUMBER
IPTN = PIN
 C
          ZERU OUT PREVIOUS TAIL NUMBER
         DICT = (NSGWK - FIDATA(1)) • 10

DIFH = NSGCFH - PIDATA(2)

DIS = (NSGCS - FIDATA(3)) • 10

DIL = (NSGCL - ) IDATA(4)) • 10

US = (NSGCS - PS) • 10
   US = (NSGCS - PS)

IF (US) 900,900,850

850 CONTINUE

OAIE = 10 • AIE

UDN = DS
```

```
CALCULATE ID FOR CUTPUT
ID = 10000 * SSN + 300 + 10 * SGPI + 1
   C
                      CALL COROUT

( PTH. ID. O/ IE. DUN. DICT)
                       CALCULATE 10 FOR OUTPUT
                      10 = 10000 + SSN + 300 + 10 + SOP1 + 2
CALL COPUUT
                     • ( PIN+IU+UAIE+DDN+DIFH)
• ( PIN+IU+UAIE+DDN+DIFH)
• CALCULATE 1D FOR OUTPUT
• 10 = 10000 • SSN v 300 + I0 • SGPI + 3
• CALCOBUUT
• ( PT)
   C
                                                   PIN. ID. OAIE. DDN. DIS)
                      CALCULATE 1D FOR OUTPUT

1D = 10000 * SSN < 300 * 10 * SGPI * 4

CALL COROUT
         900 IF (UICT) 1000,1000,950
                      CALCULATE 10 FOR CUTPUT CONTINUE
          950
                       1D = 10000 + SSN + 400 + 10 + SGPI + 2
                      CALC COROUT

CALC COROUT

CALCULATE 10 FOR OUTPUT

1D = 10000+ SSN + SOU + 10 + SGPI + 3
                      CALL CORUUT
                                                   PTN.10,0'S.UICT.DIS)
                      CALCULATE 10 FOR 001PUT
1D = 10000 + 55N 600 + 10 + 56P1 + 4
                       CALL COROUT
                                                    PTN. ID. UIL. DICT. DIL)
      RESTORE TAIL NUMBER
1000 CONTINUE
PIN = 1PIN
                       HE TURN
  LNU
                                                                                                                                                                                                                                                    360 CDS
                                                                                                                                                                                                                                             CT12/13 1
                                                                                                                                                                                                                                             C112
                                                                                                                                                                                                                                              CT14
                                                                                                                                                                                                                                                T14
                                                                                                                                                                                                                                                015-IN
                                                    DU DISP)E (PASS ),UNIT)E (AFF5), 2, DEFER ), DSN)+E . 9897412 ,
VOL)SER)E (F5, A+F5, B+F5, C+F5, D+F5, E+F5, F+F5, G+F5, H+F5,
L+F5, L+F5, L+F5, L+F5, M+F5, N+FS, O+F5, P+F5, G+F5, R+F5, S+F5]
    //CHG.FTUBFOOI DU
                                                                                                                                                                                                                                             CT22/23 1
                                                                DSN>+P.9897413.015P>( .PASS J.SPACE>(CYL, (009,001))
                                                                                                                                                                                                                                                025-0UT
    //CHG.FT11F001 DD
                                                    C96U3N.TT4E>02.ACCT>D35323007 STDALONE JOHN LINK
    //C9897U EXEC
                                                   C9603N+TIME>02.ACCT>D35323007 STOALONE JOHN LINK
DD UISP>C:KEEP].UNIT>[A+F1:2.DEFER].DSN>+A.9897419.
VOL>SER>[+F1:A+F1:B+F1:C+F1:D+F1:E+F1:F+F1:G+F1:H+F1:
1+F1:J+F1:K+F1:L+F1:M+F1:N+F1:O+F1:P+F1:Q+F1:R+F1:S+F1]
DD UISP>C:KEEP].UNIT>[T+F3:1:DEFER].DSN>+C.9897418.
VOL>SER>[C+F3:A+F3:A+F3:C+F3:D+F3:E+F3:F+F3:G+F3:M+F3:
1+F3:J+F3:K+F3:L+F3:M+F3:N+F3:O+F3:P+F3:Q+F3:R+F3:S+F3]
DU USN:+P.9897415-DISP>(OLD-DELETE)
                                                                                                                                                                                                                                             CT12/13 1
    //CHG. TU12
                                                                                                                                                                                                                                             CT12
    //CHG. TU14
                                                                                                                                                                                                                                             CT14
T14
    //CHG.TU15
   //CHG. TU22
                                                                   DISF >C . KEEP J. UNIT >CT+F5.1.DEFER J.DSN>+E.9897412.
                                                    CO
                                                   DISPOSATE DUNITY THE DISPOSATE OF BOTH TO THE DISPOSATE OF THE BOTH THE BOT
                                                                                                                                                                                                                                                122
    //CHG. TU25
                                                                                                                                                                                                                                                025-IN
1/P TU15
T/P TU25
T/P TU22
T/P TU22
T/P T
    //CHG. TPHIN
                                              10400802080
                                              10400802080
                                              10020702070
                     TUIZ
                                               1002070207
                                 PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

6.10.2 MEASURE OBSERVATIONS AT WUC LEVEL

```
D15-0UT
                                                                                                                                                                                                                             C98970*T
TFG TU15 11 010
100 500
57000231 57000232
                                    11 010Z0F0
5u0
                                                                                                                                                                                                                             STIME
STN-ETN
NSGBC
HPH
MA1
PERI
                                                                                               03300
                                                                                               033
03400
                     111
                                                       2
                                                                                               03300
                                                                                                                                                                                                                                HPF
MA
PER
                                                                                              03300
033
03400
74A
74B
74C
                                                                                               740
746
746
748
748
746
740
740
                    101
                                                       43
                                                                                                                                                                                                                               GRP1D 1
                                                                                               03300
                                                                                                                                                                                                                               HPF
                                                                                              03400
11J
11K
11K
12
13C
13J
13
13
13
23M
23M
23S
23S
24IF
42E
42F
42E
44E
45E
46A
46C
                                                                                                                                                                                                                           PER
HPO PMN
                                                                                             466HJ
467A
4951
555
6571
7597
```

```
ABCDEFRV2
                                                                                                         WDCI
                                                                                                        ABORTI
ISO A/C
ISO A/C
  57000236
57000237
                        ISO A/C
  57000243
  57000244
  57002545
  58000776
  58000901
  59000002
  590000003
  59000005
  590000006
  59000010
  59000012
                                                                                                         ISO A/C
  540000115
  59000018
  59000019
  59000026
  59000054
  59000057
  5900u058
  59000059
  59000104
  59000105
  59000108
  59000110
  5900u119
                        324
324
324
324
324
  59000141
  59000145
  59000144
59000145
59000147
  5900u151
                        324
                                                                                                         ISO A/C
  59000152
LAST
//C989/8 EXEC P9645G.PARM.ASSY>LMAP.LIST.BCDJ.
                                                                                                      c
                    PARM.L.(ED):LIST.XREF:,TIME>20.ACCT>D35323007
DU DATA.SPACE>[CYL.[1.1])
//ASSY.SYSIN
                                                                                                        1440 CDS
```

```
FURTPAN-CURO LINK TEST. JOHN LINK.
THIS DRIVER CALCULATES OBSERVATIONS FOR GROUPS 7 - I7
THIS PROGRAM GENERATE ORSERVATION DATA TAPES FOR FUTURE ANALYSIS
READ IN CARD IN 'UT DESCRIPTION FOR GROUPS 7-17
OBSERVATION TAPE FOR WUC LEVEL
                                                                        V.4LUE
                                                                                                             DESCRIPTION
DESCRIPTION
03300, 033XX, 03400 ORIGIN
03300, 03500 ORIGIN
WUC SET NUMBER
CURRENT INSPECTION - MPF
CURRENT INSPECTION - PERIODIC
NON-150
                                        3-7
                                                                         00101
                                       8-10
                                           12
                                                                                                             NON-150
                                                                                                            ISO
UNSCHEDULED MA / WEEK
UNSCHEDULED MA / FLIGHT HOUR
UNSCHEDULED MA / SORTIE
UNSCHEDULED MA / LANDING
KEPAIR ACTION / INTERVAL
AHORI MA /SORTIE
ORIGINS - HOURLY POSTFLIGHT
ORIGINS - MA
ORIGINS - PERIODIC
                                                                                                                 150
                                     15-14
                                                                             48
                                                                             10
                                                                            20
1
                                           15
                                                                                3
                                                                                                           INDEPENDENT VARIABLE - WEEK
INDEPENDENT VARIABLE - FLIGHT HOURS
INDEPENDENT VARIABLE - SORTIE
INDEPENDENT VARIABLE - LANDING
NUMENATOR OF DEPENDENT VARIABLE
DENOMINATOR OF DEPENDENT VARIABLE
INDEPENDENT VARIABLE
                                           16
                                    16-25
25-30
32-37
                      LUMMUN SECTION
```

```
COMMUNI ALE:NLANK:BSGC:CBSGI:CI:CNORM:CSGN:CTYPE:CWK:DCT:DON:

1 OFH:DICT:UIFH:LIL:DIS:DL:DS:DUMMY:DWK:ENSGWK:ESGWK:ETIME:ETN:HMC;

2 IU:IN:IT:IWAY:INSG:NORS:NSGBC:NSGCFH:NSGCL:NSGCS:NSGEOF:NSGF;

3 NSGHR:MSGN:HSGN:HSGN:HSGN:NSGU:NSGWK:NSGWC:OAIE:OFILEI:OUT:PDATA:
PIUATA :PIUATA:PISGK:PFI:PS:PSGCFH:PSGCL:PSGCS:PSGDL:PSGF:PSGK:PSGL;

5 PSGMK:PIN:PAKI SETIME:SGCFH:SGCL:SGCS:SGEOF:SGF:SGFH:SGHR:SGL-
6 SGHI:SGNOMM:SG'I:SGSN:SGU:SGWK:SGWU:SSN:SSSWK:SSTIME:SSTNO:
          75TIME . STH. IYPE . WDC
         COMADO UNSGCOCMACCUMACDVD.GRPID.GRPSEQ.ID2.IDENT.IEND.IGRP.

1 IMA).IMAX.ISEI ISTAN.ITIME.IV.NENSGG.NESG.NSET.NWDC.NWUCGP.PDATA2
         2.PHSGCF .PNSGCS.WDCD
COMMUN. 1P(7)
           COMMON
           DIMENSION SECTION
            UIMENSION
                                               CHORM(2) + CWK (3) + NSGWUC(4) + PDATA(4) + PIDATA(4) +
         1 PWK1(3) SU-11(2 + SGWUC(4) UIMENSION USUC(4,3)
           DIMERSTON
                                                       CMA(200).DVD(4),IDA(4).IMAT(3.7).NENSGG(7).
         1 PUATA2(4:3): WULU(9)
           DIMENSION BASG(14,200)
DIMENSION GRPID(7), GRPSEO(7)
TYPE SPECIFICATION SECTION
           INTEUER AIL-BLANK+BSGC+CBSGT+CT+CNORM+CSGN+CTYPE+CWK+DCT+DDN+
         1 DFH: UICT: UIFH: DIL : UIS: DL : DS: DUMMY : DWK : ENSGWK : ESGWK : ETIME : ETN : HMC .
         2 IU.III, IT.IWAY, NHSG.NORS.NSGBC.NSGCFH.NSGCL, NSGCS.NSGEOF.NSGF.
3 INSURR.HISGN.HISGHOM, NSGSN.NSGU.NSGWK.NSGWC.OAIE.OFILE1.OUT.PDATA.
4 PIUATA .PHSC.K.PPI.PS.PSGCFH, PSGCL.PSGCS.PSGDL.PSGI.PSGK.PSGL.
          4 PIDATA PRISCIR.PPI.PS.PSGCFH.PSGCL.PSGCS.PSGDL.PSGT.PSGK.PSG
5 PSGWK.PIN.PWKI.SETIME.SGCFH.SGCL.SGCS.SGEOF.SGFH.SGHR.SGL.
6 SGNI.SGNONF.SGPI.SGSN.SGU.SGWK.SGWDC.SSN.SSSWK.SSTIME.SSTNO.
          75TINE , STATTYPE , NOC
         INTEGER 15-50:CMA.CUMA.UVU.GRPID.GRPSEQ.ID2.IDENT.IEND.IGRP.
I 1MA).IMAX.IDET.ISTAN.ITIME.IV.NENSGG.NESG.NSET.NWDC.NWUCGP.PDATA2
          2. PHSGCF . PNSGCL . PHSGCS . WDCD
۲.
           COMMON CA(200), CNA(200), PS2
INTEGER CAGERA, PS2
COMMON APOR(1(2), WOCI(3)
INTEGER APOR)1, WOCI
            -------------------
            COMMUNI ISH!
            COMMUN, IPI
HEAD IN CARD IN OUT DESCRIPTIONS FOR GROUPS 7-10
CALL CINZ
C
c
            POSITION THE SCHUC FILE FOR THE FIRST TIME ONLY HEAD A SUPPORT SCHERAL RECORD FROM THE DATA BANK VIA COBOL ON SOF
   JUU CALL COP2
   JUU CALL CDP2

CHECK TAIL NUM: SK AGAINST 99999999 FRROR

IF (505N - 99999999) 305:100100:305

CHECK FOR END OF FILE ERROR

305 IF (5060F) 100:00:310:10000

CHECK TAIL 100M ER AGAINST STARTING TAIL NUMBER

310 IF (505N - 51N) 300:320:320

KEAD A NON-SUPPORT GENERAL RECORD FOR FIRST TIME
c
    J20 TYPE = 2
CALL COR2
CHECK TAIL HUMMER AGAINST 99999999 ERROR
            IF (1156514 - 99539999) 325.10000.325
CHECK FOR END (F FILE ERROR
   325 IF (1.50EOF) 10000,330,10000 POSITION THE SG FILE
c
    J30 CALL SUPUSZ
FIND END OF INITIAL INSPECTION
FIND END OF CURRENT INSPECTION
    335 CALL FESGE
            SAVE REQUIRED LATA FROM THE SG RECORD IF (PSGI) 340, 40, 337
     337 CONTINUE
    CALC VIB

ISWI = I

340 PDA(A2(I,IPII = PSGWK
PDA(A2(2,IPI) = PSGCFH
PDA(A2(3,IPI) = PSGCS
PDA(A2(4,IPI) = PSGCL
            PSZ = PSGCS
            PSGI = IPI
ISTAR = U
            ISTAR -
IEND = 0
Num 1=1,NWUCGP
            DO SUD 1=1,NWUCGP

ISTAK = IENU + I

IENU = IENU + "ENSGG(I)

CHECK TO SEE IF INSPECTION BELONG TO THE WUC GROUP

IF (IMAT(IPI-I)) 500-500-400
     400 CONTTINUE
```

BEST MINISTER COPY

```
SAVE INSPECTION INDEX TO CURRENT INDEX
C
                      IP(I) = IPI
INITIALIZE CUMULATIVE MAINTENANCE ACTIONS TO ZERO
c
                      UO 490 JELSTANTEND
                      CRAIU) = 0
                      CA(J) = U
                     CONTTINUE
       500 CONTINUE
 C CALCULATE GHOUPS 7,8,9,10

805 CALC FLISC2
C CHECK FOR CHAPSE IN IAIL NUMBER
IF (PTN - SUSM) 1000,920,1000

420 IF (PTI - NUSM) 1000,930,1000
C CHECK FOR LHU JF TIME

430 IF (SEIIME - SWK) 1100,930,950

950 IF (SEIIME - NSGW) 1100,335,335
C IEST FOR END C: INFORMATION FLAG
1000 IF (SGSN - 99579999) 1010,11000,11000
1010 IF (NSGSN - 9979999) 1020,11000,11000
C CHECK FOR LAST TAIL NUMBER
1020 IF (NSGSN - ET) 1030,1030,11000
1030 IF (SGSN - L[N) 1040,1040,11000
                      CALCULATE GHULPS 7,8,9,10
    1040 1.AY = 1
1000 CONTINUE
11000 CONTINUE

***ITC (6.11005)

11005 FORMAT (7H 510P4 1
                      111 = 0
                     CALL CLOSEF (JTI)
                      CALL LYIT
                      LIIU
                      SUBMOUTINE CINZ
THIS SUPMOUTINE HEADS IN THE MODEL DEFINITION FOR VARIABLES 7-17
                      ALSO BASIC IN TIALIZATION COMMON SECTION
                        LOMMUN ALL, BLANK, BSGC, CHSG1, CI, CNORM, CSGN, CTYPE, CWK, DCT, DDN, DFH, DICI, DJF, 'DIL, DIS, DLHDS, DUMMY, DWK, EMSGWK, ESGWK, ETIME, ETN, HMC, ID, III, IT, IWAY, NNSG, NOMS, NSGBC, NSGCF, NSGCL, NSGCS, NSGCF, NSGF, MSGHM, NSGN, NSGN, NSGWK, NSGWK, NSGWUC, OAIE, OFILEI, OUT, PDATA,
                        6 SUITI-SCHORM-SGPT-SGSN-SGU-SGWR-SGWUC, SSN-SSSWR-SSTTME-SSTHO,

TSTTME-STN-TY-E-WUC

COMMON UNIS GO-CMA-CUMA-DVD-GRPID-GRPSEO-ID2-IDENT-IENU-IGRP-

1 IMAT, IMAX-ISET, ISTAH-ITIME-IV-NENSGG-NESG-NSET, NWDC-NWUCGP, PDATA2

2-PHSGCF-PNSGCL-PNSGCS-WDCD

COMMON IP(7)
                      COMMON IUA
UIMENSION SECTION
                        CHORM(2).CWK(3).NSGWUC(4).PDATA(4).PIDATA(4).
                   1 PWK1(3),56:1( 2),56WUC(4)
UIMLNSION BSGC(4,3)
                       UIMLN'S TON
                                                                                                      CMA(200):570(4),10A(4),1MAT(3.7),NENSGG(7),
                   1 PUATA2(4.3), WDCU(9)
                      DIMENSION GRETO(7) GRESCO(7)
                   INTIGHT AT THE TOTAL OF THE TOTAL OF THE TOTAL OF THE SERVICE OF T
                  7511Me, 5TN, 174 , MDC
1NTEGER HMSGC, CMA, CUMA, DVD, GRP1D, GRPSEQ, 1D2, 1DENT, 1END, 16RP,
1 IMAT, IMAX, 1561, 1STAN, ITIME, 1V, NENSGG, NESG, NSET, NWDC, NWUCOP, PDATA2
                    2. PHSGCF . PNSGCL . PNSGCS . NDCD
```

```
c
                                                     COMMUNI CA'20U), CRA(200), PS2
INTLOLE CA', CHA, PS2
LOMAUN ABURT. (2), WDCI(3)
INTLOLE ADURT', WUCI
           COMMUN ISWI
          COMMON IP:
UASIC INITIAL'ZATION SECTION
INITIALIZE FI'-E NUMBERS
          OFILE = 1

IN = 5

OUT = 6

SGF = 11

(SGF = 12

INITIALIZE FL (IS)
C
           SGLUF = U
           HISULUF = 0
          IMAY = 1
NAUL = 9
          10A(1) = 701
10A(2) = 802
10A(3) = 903
10A(4) = 1004
           IT = 1
         CARD THE TOTAL DESTRUCTION SECTION
THE FOLLOWING IS HOW YOU READ CARD INPUT VIA COBOL LINKAGE
READ IN STARF WELK AIRD END WEEK OF ANALYSIS
READ IN A BLANK FIELD
CALL CREADI
                        1 (1N,1T,STIME.ETIME.BLANK)
HEAD 1N TAIL HUMBER HANGE
CALL CREAD1
c
        HEAD IN HUMBER OF ENTRIES IN SG DICTIONARY
HEAD IN HUMBER OF ENTRIES IN SG DICTIONARY
HEAD IN HUMBER OF NSG GROUPS
CALL CREADI
1 (IN.ITHESURCHINUCGP+DUMMY)
HEAD IN SUPPORT GENERAL DICTIONARY
          11 = 2
        U0 50 1=1,...3HC
CALL CHEAD2
1 (14,11,850(1,1),850((2,1),850((3,1),856((4,1))
     50 CONTINUE INSPECTION USE MATRIX TO ZERO
          UO 100 1=1,05GBC
           U = (L.1) | AMI
   100 CONTINUE
19111ALIZE STARTING AND ENDING VALUES OF DO LOOP TO READ IN WUC GROUP
           151AN = U
           1614) = 0
        16 HJ = 0

10 200 1=1.NWUCGP

11 = 1

REAU II GROUP ID

REAU GREADI

(III.IT.GRPLU.I).GRPSEG(I).DUMMY)

REAU IN BUMHE! OF INSPECTIONS ASSOCIATED WITH THIS WUC GROUP

REAU IN (BUMHE! OF INSPECTIONS ASSOCIATED WITH THIS WUC GROUP

CALL GREADI

1 (DELTADES CASAL NISGG(I).DUMMY)
C
        I (INTITATES GATENIS GG (I) ADUMNY)
FIND OUT WHICH ENTRY OF THE INSPECTION MATRIX NEEDS MODIFICATION
C
        125 CONTINUE
1MAT(J,1) = 1
60 10 160
    150 CONTINUE
   160 CONTINUE UPDATE STARTING AND ENDING VALUES OF DO LOOP TO READ IN MUC GROUP
          ISTAN = 1END A 1
1END = ILNU + NENSGG(I)
        00 190 J=15(~R.1END
CALL CREAD2
1 [14,17,6M5GC(1,J),8M5GC(2,J),8M5GC(3,J),8M5GC(4,J))
   190 COLLINUE
```

```
INITIALIZE NUMBER OF WUC DEFINITIONS TO LEND
C
                 MSET = ILNU
                  READ IN WHEN "ISCOVERED CODE DICTIONARY
              CALL CREADS

[ (IN,IT, MDCU(1), WDCD(2), WDCD(3), WDCD(4), WDCD(5), WDCD(6), WDCD(7),

2 WUCU(8), WDCU 9))

READ IN MDC INSPECTION
c

    CALL CREAD3
    (IN,IT,WDCI(1),WDCI(2),WDCI(3),DUMMY,DUMMY,DUMMY,DUMMY,DUMMY,DUMMY

               . DUMMY . DUMMY . CUMMY)
                 IT = I
READ IN ABORT INDICES
C
              CALL CREAD: (I), ABORTI(2), DUMMY)
                  REAU IN FIRST AIRCRAFT SUBSET INFORMATION
                  CALL CREAD!
               I (In. IT. SSTHU. SSSWK. DUMMY)
                  RF. TURGE
                  LIVU
                   SUBROUTINE COB2
                  THIS SUBROUTINE CALL A COROL SUBROUTINE TO READ THE DATA BANK COMMON SECTION
C
              COMMON AIE.BLANK, BSGC.CBSGI, CI.CNORM, CSGN.CTYPE; CMK, DCT, DDN,
1 DFH, DICT, UIF.', DIL, DIS, DL, DS, DUMMY, DWK, ENSWK, ESGWK, ETIME, ETN, HMC,
2 ID; IH, II; IMAY, NNSG, NORS, NSGCC, NSGCF, NSGCC, NSGCGF, NSGF,
3 NSGHR, NSGN, HSGNOM, NSGN, NSGU, NSGWK, NSGWL, OAIE, OFILE, OUT, PDATA,
4 PIJATA , PRAGWK, PPI, PS, PSGCFH, PSGCL, PSGCS, PSGDL, PSG, PSGH, PSGCL,
5 PSUWK, PTN, PA(I, SETIME, SGCFH, SGCL), SGCO, SGEOP, SGF, SGFH, SGHR, SGL,
                     SUHI, SGNORM, SGPI, SGSN, SGU, SGWK, SGWUC, SSN, SSSWK, SSTIME, SSTNO,
                7511NL,STN,TYPE,WUC
COMMON BHJGC,CMA,CUMA,DVD,GRPID,GRPSEQ,ID2,IDENT,IEND,IGRP,
               1 IMAI, IMAX, ISTIISTAH, ITIME, IV, NENSGG, NESG, NSET, NWDC, NWUCGP, PDATA2
2, PNSGCF, PNSGCL, PNSGCS, WDCD
                   COMMON IP(7)
                  LOMMON
                                              TUN
                  UIMENSION SECTION
                  UIMENSION CHORM(2), CWK(3), NSGWUC(4), PDATA(4), PIDATA(4),
               1 PWK1(3), SUH1'2), SGWUC(4)
                  UIMENSION USGC (4.3)
                  DIMENSION
                                                                               CMA1200) + DVD(4) + IDA(4) + IMAT(3+7) + NENSGG(7) +
               I PDA142(4,3), (DCD(9)
                 DIMENSION GRPIN(7), GPPSEQ(7)
                  TYPE SPECIFICATION SECTION
               INTEGER ATS.BLANK.BSGC.CUSGI.CI.CNORM.CSGN.CTYPE.CWK.DCT.DDN.
DFH.DICT.UIFH.DIL.DIS.DL.DS.DUMMY.DWK.ENSGWK.ESGWK.ETIME.ETN.HMC.
              1 DEFIDITE DIFFIDITE DISTOLOUS DEFIDITE DESIGNATE DEFINENCE DE L'ASSENTATION DE L'ASSENTATI
                     NTEGER BUSG: CMA: CUMA: DVD: GRP ID: GRPSEG: ID2: IDENT: IEND: IGRP:
IMAI: IMAX: ISLT: ISTAH: ITIME: IV: NENSGG: NESG: NSET: NWDC: NWUCGP: PDATA2
                  THEFTHE
               2.PNSGCF,PNSGC..PNSGCS.WDCD
COMMON CA(200),CRA(200),PS2
                      INTEGER CALCRAPES
                  COMMON ABORTI(2), WDCI(3)
INTEGER ABORTI, WDCI
                   COMMON ISWI
         COMMUN IP!
GO TO (10:100'-TYPE
HEAD A SUPPORT GENERAL RECORD
10 CALL CORRD!
               * (SGF,SGLOF,S SN,SGWK,SGWUC(1),SGWUC(2),SGWUC(3),SGWUC(4),DUMMY,
* DUMMY,SGU,SG'R,DUMMY,SGNORM,DUMMY,SGFH,SGCFH,SGCS,SGCL)
                  HETUHN HEAU A NON-SUPPORT GENERAL RECORD
      100 CALL CORND1
               * (NSGF,NSGEOF,NSGSN,NSGWK,NSGWUC(1),NSGWUC(2),NSGWUC(3),NSGWUC(4),
* WDG,HMC,NSGU,NSGHR,AIE,NSGNOM,NORS,CTYPE,NSGCFH,NSGCS,NSGCL)
```



HE TUHA LIID SUBHOUT THE SUNSE THIS SUPPOUTINE POSITION SG FILE FOR NEW AIRCRAFT SUBSET DEPENDING ON TWAY FOR UNDUPS 7-17 COMMON SECTIO ' COMMON SECTIO*

COMMON ALE, BLANK, BSGC, CBSGI, CI, CNORM, CSGN, CTYPE, CWK, DCT, DDN,

DFH, DICT, DIFF, DIL, DIS, DL, DS, DBMMY, DBW, ENSOWK, ESGWK, ETTIME SETN, HMC,

2 ID, IN, IT, I NA, **NNSG, NOKS, NSGD, NSGCH, NSGCL, NSGCS, NSGCF, NSGCF, NSGC,

3 ISSGN, BSGN, BSGN, NSGN, NSGD, NSGWK, NSGWC, OAIE, OF ILEI, GUT, PDATA,

4 ITIDATA PHONOWN, PPI, PS, PSGCF, PSGC, PSGCS, PSGDL, PSGI, PSOK, PSGL,

5 INSWK, PIN, **I, STIME, SGCF, HSGCL, SGCC, SGCF, SGF, SGHR, SGHR, SGL,

6 SORT, **SGRM, **SGF, SGN, SGWK, SOWU, SSN, SSSWK, SSTIME, SSTMG, 75TINE STINE TYPE WOOL COMMON BIGGOCMA.CUMA.DVD.GRPID.GRPSEQ.ID2.IDENT.IEND.IDRP.
1 IMAI.IMAX.15-T.ISTAK.ITIME.IV.NENSGG.NESG.NSET.NWDC.NWUCGP.PDATA2
2.PNSGCF.PBSGC.PNSGCS.WDCD COMMUN IP(7) IUA DIMENSION SECTION UIM: (1510); CNORM(2) CWK (3) (NSGWUC(4) (PDATA(4) (PIDATA(4)) I PWK1(3). SUN1'2). SGWUC(4) WIMERSION BSGC (4.3) CMA(200) . DVD(4) . IDA(4) . IMAT(3.7) . NENSGG(7) . 1 PUATA2(4.3) .. 7CU(9) DIMENSION CHESC(4,200)
DIMENSION GRPID(7), GRPSEQ(7) IYPE SPECIFICATION SECTION

1YPE SPECIFICATION SECTION

1HTEGER AIF, BLANK + BSGC + CBSGI + CI + CNGRM + CSGN + CTYPE + CWK + DCT + DDN +

1 FFH, DICT + UIFH, DIL + UIS+ DL + DS+ DUMMY + DWK + ENSGWK + ESWK + ETIME + ETN + HMC + 75TIME STN+TYPE WUC 14TEBER HUSGC+CMA+CUMA+DVD+GRPID+GRPSEQ+ID2+IDENT+IEND+IGRP+ 1 IMAGE AND COMMON CAL2001 CHAC2001 PS2 INTEGEP CAICHAIPS2 INTEGER ARONI , WDC1 (3) COMMUN ISAT LOMMUN IFA 15W) = 0 SET PSGI TU 25HO C INITIALIZE PHLVIOUS WEEK INDICES TO -I 00 200 I=1.PWUCGP 00 200 I: 1P(1) = -1 CONTINUE 200 INITIALIZE CUM JEATIVE MAINTENANCE ACTIONS TO -1 UO 300 1=1+NSET CRA(1) = -1 CA(1) = -1 CMA(I) = -I 300 CONTINUE GO TO (320.325) . IWAY ENTER HERE FUR REGINNING OF NEW AIRCRAFT INITIALIZE AIRCRAFT START TIME C 10111ALIZE ATRURAFT SUBSET NUMBER C 5911 = 1 SAVE PREVIOUS TAIL NUMBER C . PTH = SGSH CHECK IF TAILNUMBER SUBSET EXIST € IF (565h -551'0) 331:332:330 ENTER HERE FOR REGINNING OF AIRCRAFT SUBSET UPDATE ATPERAT T SUBSET NUMBER 325 550 = 550 + 1 C C INITIALIZE AINCRAFT SUBSET START TIME C INITIALIZE AIRCRAFT SUBSET SSTIME = SYSWA C HEAD IN SUUSE, INFORMATION C 330 HEAU (11:33) SSTHO:SSSWK C 35 FORMAT (21:44) 330 CALL CHEADI I TIMIT'S STREET SSENT UDDMY)
CHEER FOR CHANGE IN IAIL NUMBER
IF (SGSV -SSIN)! 331.332.320
(NIIALIZE ALPORAFT LND TIME C

BEST AVAILABLE COPY 531 SEFEME = LEFTER OF TO AND ALT FINE CONTROL OF SHIPSET 532 ALTER TOWNER AGAINST STARTING WEEK 540 IF (SGWK ~ 55. [ML) 345:349:349 HEAD A SUPPORT GENERAL RECORD FROM THE DATA BANK VIA COBOL ON SGF 14 CALL CIP2 CHECK HI.OCKIDE FLAG 11 (SGAN ~ 29999999) 347:10200:347 c c II (GOSN - 99999999) 347,10200,347 CHECK FOIC END OF INFORMATION (EOF) C 347 1F1 50EOF) 10210:340:10200 CHECK FOR CHANGE IN TAIL NUMBER 349 IF ISGSN - PIN, 320,350,320 CHECK IF A SUBSET EXISTS C 350 IF (SGSN - SSTNO) 352,351,32 CHECK ENDTINE 351 IF (SUTIME - S9WK) 325,325,360 - SSTNO) 352,351,320 CHECK ENDTIME С 352 IF (SETIME - SGWK) 345,345,360 FIND NEXT LEGAL SGWUC 360 CALL FLSG2 **KETURN** 10200 CONTINUE WHILE (6.10210. 10210 FORMAT (13H 56' OF STUP2) 171 = 0 CALL CLOSEF (1:1) CALL LOJMSG Elio SUBROUTINE FLSG2 THIS SUPROUTIN' FINDS A LEGAL SGWUC LOMMON SECTION .DMMUN A1E.BLANK:BSGC:CBSGI;CI:CNORM;CSGN;CTYPE:CWK;DCT;DDN; OFH:D1CT:D1+H D1L;D1S:DL:DS:DUMMY:DWK;ENSGWK:ESGWK:ETIME:ETN;HMC; 2 1D.1141T.1WAY-NUSG.NORS.NSGBC.NSGCFH.NSGCL.NSGCS.NSGEOF.NSGF. 3 NSGHR.NSGN.HSGNOM.NSGSN.NSGU.NSGWC.OAIE.OFILE1.OUT.PDATA. 4 PIDATA .PHS.WK.PPI.PS.PSGCFH.PSGCL.PSGCS.PSGDL.PSGI.PSGK.PSGL. 5 PSGAK.PIN.PWK1.SETIME.SGCFH.SGCL.SGCS.SGEOF.SGF.SGFH.SGHR.SGL. SUILL, SCHORM, SCP1, SCSN, SCH, SCWK, SCWUC, SSN, SSSWK, SSTIME, SSTNO, 75TIME,5TH,TYPE,WUC COMMUNITURES:C.CMA.CUMA.DVD.GRPID.GRPSEQ.1D2.IDENT.IEND.IGHP. 1 IMAT, IMAX, ISET, ISTAK, ITIME, IV, NENSGG, NESG, NSET, NWDC, NWUCGP, PDATA2 2. PHSGCF. PNSGCL. PHSGCS. WDCD COMMUN 1P(7) COMMUN 1UA UIMENSION SECTION UTHERSION. 1 PWK1(3), SUNI(2), SGWUC(4) DIMENSION BSUC(4,3) CMA(200) . DVD(4) . 1DA(4) . 1MAT (3.7) . NENSGG(7) . UIMENSION 1 PUATA2(4.3) . W CD(9) 1 PDA[A2(4,3),W CD[9) UIMEHSION GRP10(17)-GRPSEQ(7)) YPE SPECIFICATION SECTION INTEGER ALL-HEANK-MSGC:CRSGI,CI:CNORM:CSGN:CTYPE:CWK.DCT.UDN, 1 DFH;DIC(:UIFH,DIL,DIS;DLMY;DWK;ENSGWK:ESGWK:ETIME:ETN:HMC, 2 ID:III:T:Jumy;NISG:NOMS:NSGU:NSGC*M:NSGC*NSGC*M:SGGS*CFSGPFNSGC; 3 NSGHR:NSGN:RSGN:NSGU:NSGWK;NSGWC:OAIE;OFILE1;OUT;PDATA; 4 PIUATA PPISOWN:PPI:PS:PS:GCFM:PSGC:PSGCS:PSGDI:PSGI:PSGK:PSGL; 5 PSGWA:PTIN:PWK.shtIMF;SGCFM:SGCC:SGFOFSGR:SGF:RSGR:SGR:SGR:SGR: 751IML,STN,TYPE,WDC INTEGER BNSGC,CMA,CUMA,DVD,GRPID,GRPSEO,ID2,IDENT,IEND,IGRP, I IMAI,IMAX,ISET,ISTAK,ITIME,IV,NENSGG,NESG,NSET,NWDC,NWUCGP,PDATA2 2.PNSGCF.PNSGCL.PNSGCS.WDCD COMMON CA(200),CHA(200).PS2 INTEGEP CALCRAIPS2 COMMON ABOHIT(2), WDC1(3) INTEGER ABORTI, WDC1

THEORY AMORTISMOCI
COMMON 184T
COMMON 1P1
360 DO 309 CK:367 = 1:NSGHC
CHLCK ALL CHARACTERS OF SGWUC
UO 305 1=1:~
1F (U5GC(1:C5S1) - SGWUC(1)) 362:365:362
362 IF (B5GC(1:CUSHI) - BLANK) 369:410:369

BES. COPY

```
365 CONTTIQE
                 UO 10 410
      363 CONTINUE
                 CHIRY FNLSGZ
                TYPL = I
READ A SU RECOPD
                 CHECK TAIL HOMBER AGAINST 9999999 PADDING OF LAST LAST BLOCK
C
                 IF (565N - 9999999) 375,405,375
                  CHLCK FOR LOF
     375 IF (SGEOF) 400-360-400
SET TAIL NUMBER TO 99999999
      400 5650 = 99999999;
405 CH561 = N560C + 1
      410 CONTINE
                 CI = CHSGI
RETURN
                  SUBROUTINE FLSGS
THIS SUFROUTINE FINDS THE END OF THE CURRENT INSPECTION
                  COMMON SECTION
                                                ATE HEARK . HSGC . CASGI . CI . CNORM . CSGN . CTYPE . CWK . DCT . DDN .
               1 DFH.(IC).UI. H. DIL.DIS.DL.DS.DUMMY.DWK.ENSGWK.ESGWK.ETIME.ETN.HMC.
2 IU.14.1).IMAY NNSG.NOHS.NSGHC.NSGCFH.NSGCL.NSGCS.NSGEOF.NSGF.
                   NS.HR. NSGN. SGNUM, NSGSN. NSGU. NSGWK. NSGWC. OATE. OF ILET. OUT. PDATA.
               7511 ML . STILL TYLE - WUC
                COMMON HISGC: CMA: CUMA: DVD: GRPID: GRPSEQ: 102: 10ENT: 1END: 1GRP:
1 IMAT: IMAX: 15E: : ISTAN: ITIME: IV: NENSGG: NESG: NSET: NWDC: NWUCGP; PDATA2
                2. PNSULF . PNSGLL . PNSGCS . #DCD
                  COMMUNITEDITIES
                 COMMUNI TUN
UIMENSION SEUTION
                                                                      CHORM(2) + CWK(3) + NSGWUC(4) + PDATA(4) + PIDATA(4) +
                  DIMERSION
                1 PHK1(3) . 50 . 1 (, ) . 50 WUC (4)
                  UIME1:5101 0506 4.51
                                                                               CMA(200).DVD(4).IDA(4).IMA1(3.7).NENSGG(7).
                  WIMEHSTON.
                 U)MERSION PMS C(4.200)
UIMERSION GRP'D(7).GRPSEQ(7)
               TITE OF A TENNES OF THE TENSE OF THE TENNES 
               5 PSGAK, PIN, PAKI, SETIME, SGCFH, SGCL, SGCS, SGEOF, SGF, SGFH, SGHR, SGL, 6 GGH, SGOOKP, SG, 71, SGSN, SGU, 56WK, SGWUC, SSN, SSSWK, SSTIME, SSTNO,
                75TIAL STILL PPE, YUC
                TYTEGER BISCO.CMA.CUMA.DVD.GRPID.GRPSEQ.1D2.1DENT.IEND.IGRP.
I IMAT.IMAX.ISET.ISTAR.ITIME.IV.NENSGG.NESG.NSET.NWDC.NWUCGP.PDATA2
2.PMSGCF.PMSGCL.PNSGCS.WDCD
                     OMMON CATEOUS CHATEUDS PS2
INTEGER CALCHA PS2
                  LOMINUN
                  COMMUNI ABORTITZE, WDCI(3)
INTEGER APORTI, WUCI
                   COMMON ISMT
                   COMMON
                                                                                                        ..............................
                   SAVE LAST SO RECORD INFORMATION
          20 PSUMA = SOMA
                  PSOCEH = SOCEH
PSOCS = SOCS
PSOCC = SOCC
```

BEST AVAILABLE COPY

```
IPI = CI
FINU NEXT LEGAL SGWUC
80 CAEL FNESG2
C.
      80 CAEL FNESG2
CHECK FOR END LIME
IF (15GWK - SCTIML) 85.300.300
CHECK FOR CHANGE IN TAIE NUMBER
85 IF (PIN - SGSN) 300.89.300
CALCULATE DIFFERENCE IN WEEK FIELD FOR CONSECTIVE SO RECORDS
88 UWK = SGAK - PSGWK
CHECK FOR CHANGE IN WEEK
IF (UWK) 300.20 90
IS PREVIOUS SG INDEX =3(3400).
90 IF (PSGI-3) 95.100.95
IS DIFF. IN WEEKS MORE THAN 2.
95 IF (UWK-3) 20.200.200
IS DIFF. IN WELKS MORE THAN 4.
100 IF (UAK-5) 20.200.200
200 CONTINUE
c
c
C
c
r
        200 CONTINUE
                      ESGAR = PSUNK
                        KE TUKI
       300 CONTTINUE
                      ESUNK = SETINE + 1
                       KE TURIS
                      Eliu
                        SUBROUTINE FLNS 12
C
                        THIS SUPROUTINE FINDS LEGAL NSG RECORD TYPE 4 RECORD FROM DATA BANK
                       LUMMUN SECTION
                    COMMUNA .IE. TLANK. BSGC. COSGI. CI. CNORM, CSGN. CTYPE. CWK. DCT. DDN.
DFH. DICT. UI. H. DIE. DIS. DL. US. DDMMY. DWK. ENSGWK. ESGWK. ETIME. ETN. HMC.
                   2 TOP THE FEET OF THE SECRET PROCESS PSGLE PSGLE
                    5 PSUNK, PIN, PMKI, SETIME, SUCFH, SGCL, SGCS, SGEGF, SGF, SGFH, SGHR, SG
6 SUNI, SGNOHM, SGPI, SGSN, SGU, SGWK, SGWUC, SSN, SSSWK, SSTIME, SSTNO,
                    75TIME , STILL TYPE , YUC
                          .OMMUN HINSGT, CMA.CUMA.DVD.GRPID.GRPSEQ.ID2.IDENT.IEND.IGRP.
IMAT.IMAX.ISET.ISTAR.ITIME.IV.NENSGG.NESG.NSET.NWDC.NWUCGP.PDATA2
                   2. PHSUCF , PNSULL . MSGCS . WDCD
                      COMMUNI 1P(7)
                      DIMENSION SECTION
                      UTMERSTON
                                                                                           CHORM(2) . CWK (3) . NSGWUC(4) . PDATA(4) . PIDATA(4) .
                   1 PWK1(3) . SG/11(2) . SGNUC(4)
                      DIMENSION BSGC ( - . 3)
                      OIMLNSTON
                                                                                                         CMA(200), DVD(4), IDA(4), IMAT(3.7), NENSGO(7),
                    I PUATA2(4.3) . WDCU(9)
                      DIMENSION MOSSEC(#1200)
DIMENSION GRPID(7):GRPSEQ(7)
TYPE SPECIFICATION SECTION
              INTEGER ALE-ALANK-BSGC-CBSGI, CI-CNORM-CSGN, CTYPE-CWK-DCT, DDN,

1 UFH, DICI-DIFH- ) IL-DIS, DL-DS-DUMMY-DWK-ENSGWK-ETIME-ETN-HMC.

2 ID-1H-II-IWAY-NNSG-NORS-RSGHC-NSGCFH-NSGCL-NSGCS-NSGCF-NSGF-,

3 H3-CHR-RISON-NSGHIDW-NSG-NN-RSGHC-NSGCH-NSGCS-NSGCF-NSGF-,

4 PINATA - PENGK-NPPI-PS-PSGCFH-PSGCL-PSGCS-PSGDL-PSGR-PSGI-

5 P3-WK-PIN-P-KI-SETIME-SGCFH-SGCL-SGCS-SSGFR-SGFH-SOHR-SGL-

6 SGH1-SGHORM-SGP1-SGSN-SGH-SGWK-SGWUC-SSN-SSSWK-SSTIME-SSTNG-
                    75TIML . STILL I YHE . NUC
                          INTEGER HUSGC.CMA.CUMA.UVD.GRP1D.ORPSEO.ID2.IDENT.IEND.IGRP.
IMAI.IMAX.ISET.ISTAR.ITIME.IV.NENSOG.NESO.NSET.NWDC.NWUCOP.PDATA2
                    2.PNSGCF.PNSGCL.PNSGCS.WDCD
COMMON CALCUDI,CRAICOD),PS2
INILGEP CA.CRA PS2
COMMON AROHI[(2),WDC](3)
INILGER APORTI,WDC1
                        COMMON 15WT
                        COMMUN
C
                         171ME = 1
                        LHECK HEUCKING FLAG
     CHECK RECORTING FING

SSU IF (HISGSH = 99999999) 355:805:355

LHECK FOR EIL OF INFORMATION

355 IF (HISGEUF) 200:350:800

CHECK FOR RECORE TYPE 4

360 IF (LIYPE = 4) 370:380:370

370 IYPE = 2

CALL CDP2

10 IN EE
 C
                       GO TO 350 CHANGE IN TAILNUMBER
      380 IF (HSGSN = PTN, 370:390:805
CHELK WELK FOR FASS END OF CURRENT SG
390 IF (HSGWK = LSGWK) 370:395:400
395 IF (ISWT) 370:374:410
```

```
CHECK WEEK BEFORE THE START OF NEXT INSPECTION 400 IF (NSGWK - SGWK) 410,410,810
    410 CONTINUE
    60 TU (420.430).1TIME
420 CONTINUE
            TITME = 2
SAVE PREVIOUS WEEK
PNSOWK = NSGUK
PNSOUS = NSGUFH
PNSGUS = NSGUS
PNSGUL = NSGUL
CONTINUE
C
    430 CONTINUE
IRA = 0
    MAI = 0

AI = 0

AI = 0

CHECK FOR CHANGE IN WEEK

IF (PISGRK - NSGWK) 790,440,790

440 CONTINUE
    15 (NSOSN - PTN) 790.450.790
450 CONTINUE
            CHECK FOR VACID WHEN DISCOVERED CODE
UD 520 I=1,NWD.

IF (NDCD(I) - WC.) 520,590,520
    520 CONTINUE
UO 540 K=1.41568C
IF (NOC - WULI(K)) 540.550.540
    540 CONTINUE
            60 10 370
    550 CONTINUE
            164 = K
60 TU 619
    590 CONTINUE
MAI = I
    IF (1 - ABORTI(11) 602,615,602
602 IF (1- ABOR(1(2)) 619,615,619
    613 CONTINUE
    680 CONTINUE
    690 CONTINUE
    700 CONTINUE.
    720 CONTINUE

IF (MAI) 725+75"+725

725 COMITMUE
   725 COMMINE ACCUMULATE MAINTENANCE ACTIONS CMA(J) = CMA(J) +: SGU IF (AI) = 730 + 370 - 730 CA(J) = CA(J) + NSGU COMMINE IF (INA) 750 + 750 COMMINE IF (INA) 750 + 750 CMA(J) = CRA(J) + NSGU CO TO 370 760 CMA(J) = CRA(J) + NSGU CO TO 370 790 COMMINER
    790 CONTINUE
            LALL V7T10
ZERG GUT -CA- ARKAY -
            ZERG OUT -CA- ARKIY -
151AH = U
151B = 0
00 795 I=1+HAUCGP
15(AK = IEND + 1
161B = IEND + NENSGG(I)
00 795 J=151AH+IEND
0A(J) = 0
0AN(1916)
   795 CONTINUE HE-INITIALIZE -ITIME- TO I -
   ## - INTITACTEC - INTITACT TO 1 - 111hc = 1 00 Set IF FINE 0 NEXT INSPECTION IS EXCLEDED - 00 (0 400 800 NSGS) = 9099,949 805 EMSGAR = SETIME 1 I
    BIO HI CHELL
            E'IU
            SUBHOUTINE VARZ
```

C

COMMUN SECTION

```
C
                    COMMUNI AIE-RLANK-BSGC-CBSGI-CI-CNORM-CSGN-CTTPE-CHK-DCT-DDN-
I DFH-DICT-UIFH-D1L-015-DL-US-DUMMY-DWK-ENSGWK-ESIMK-ETIME-ETN-HMC-
                              ID. IN. 11 . IWAY . N ISG. NORS . NSGUC . NSGCFH . NSGCL . NSGCS . NSGEOF . NSGF
                    2 ID-IN-II-IWATA ISGNOM-NSGDC-NSGCFHANGCLANGCCS-NSGCOF-NSGF

3 IISGHRINSGNOM-NSGSN-NSGDL-NSGWK-NSGWUC-OAIE-OFILEI-OUT-PDATA-

4 PIJAIA -- PHSGWK-PFI-PS-PSGCFH-PSGCL-PSGCS-PSGDL-PSGF-PSGK-PSGL-

5 PSGWK-PTN-PWKI-JETIME-SGCFH-SGCL-SGCS-SGEOF-SGF-SGFH-SGHR-SGL-

6 SGNI-SGHOMM-SGP'-SGSN-SGU-SGWK-SGWUC-SSN-SSSWK-SSTIME-SSTNO-
                      7511NL,511N-TYPE,WIG
                       1 1MAI, IMAX, ISET, ISTAH, ITIME, IV, NENSGG, NESG, NSET, NWDC, NWUCGP, PDATA2
                      2. PNSGCF . PNSGCL . P ISGCS . WOCD
                           COMMUN IP(7)
                          COMMUN INA
UIMENSION SECTION
                             DIMENSION
                                                                                                         CHORM(21.CHK(31.NSGWUC(4).PDATA(4),PIDATA(4).
                       I PWK1131.5641121.56WUC(4)
                           UIMENSION USUC (4. 3)
                           LIMENSTON.
                                                                                                                       CMA(200).DVD(4), IDA(4), IMAT(3.7), NENSGG(7),
                       I PDA (A2 (4:3) . NOCE (9)
                          UTMENSION HISAC(4+240)
UTMENSION GRPID: 7)+GRPSEQ(7)
TYPE SPECIFICATION SECTION
                           ALF. BLANK - BSGC - CHSGI - CI - CNORM - CSGN - CTYPE + CWK - DCT , DDN -
                           I STLUEN
                       1 DETAIL COULT TO DE ADEC DE DUMMEN DUME ENSURE ESCHENT THE ETHINME.
2 10-11-11-11-11-11-15-10-1005-NSGC-NSGCH-NSGCL-NSGCS-NSGFOF-NSGF.
3 15-11-11-15-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-15-10-
                       4 PIDATA .PRSGWL.PPT.PS.PSGCFH.PSGCL.PSGCS.PSGDL.PSGT.PSGK.PSGL.
5 PSGWK.P(N.P.KT. FTIME.SGCFH.SGCL.SGCS.SGEOF.SGF.SGFH.SGHR.SGL.
6 SGRT.SGRORN.SGP!.SGSN.SGH.SGHR.SGWC.SSN.SSSWK.SSTIME.SSTNO.
                      TSTIRE STIRETY E. WUC INTEREST TO STREET TO ST
                           COMPON
                                  DMMON CATEDUTICHATEUDTIPSE
                           COMMON APORTICE, WUCI(3)
INTEGER ABOR(I, WCCI
                           COMMUNITSWT
                           LOMMUN THE
                          E' THY V7110
                             151mm = U
                           UN 200 TORPETANNUCEP CALCULATE FIRST LALF OF OUTPUT IDENT
                           ISTAN = IFNO + I
IFNO = IEND + NEWSGG(IGRP)
                           IMAX = II (1016)
IF (1MAX) 200+201+100
                        ¢
                           UO 180 A=1.4
IF (UVD(A)) IA0.1A0.170
          170 CONTINUE
                           102 = 104(K) + 10000+SSN + 10+IMAX
                           IV = OVO (R)
                           CALL COROUT
                        . (ILENT. IDZ. CUMA, TVD(K). IV)
```

```
15 (U'.) IAN.IAN.15
   175 | 174 = 100000-55N + K + 2000 +10+1MAX

CAA = 10+CA(J)

CALL COBOUT

+ (IDENT-10-2-CAA-(5-IV)

180 CONTINUE
    190 CONTINUE
    200 CONTINUE
            PSZ = PNSGLS
            RETURN
            ENTHY VIB
            IEND = 0
             ISTAK = U
   131A- U

100 1200 1GKP=1. WUCGP

15TAM = 1ENU + 1

1END = 1ENU + NENSGG(1GRP)

1F (1MAT(C1.1GRP), 1200.1200.300

300 1MAx = IP(1GKP)

1F (1MAX) 1200.1200.1100
 1100 CONTTHUE
           UVU(1) = 10 • (PI-SGWK - PDATA2(1, IMAX))
UVU(2) = PNSGCF - PDATA2(2, IMAX)
UVU(3) = 10 • (PNSGCS - PDATA2(3, IMAX))
UVU(4) = 10 • (PNSGCL - PDATA2(4, IMAX))
UVU(4) = 10 • (PNSGCL - PDATA2(4, IMAX))
UVU(4) = 11 • (PNSGCL - PDATA2(4, IMAX))
UVU(4) = 12 • (PNSGCL - PDATA2(4, IMAX))
UVU(4) = 12 • (PNSGCL - PDATA2(4, IMAX))
           CALCULATE SECOND HALF OF OUTPUT ID
10ENT = 1000+GRP1/(1-GRP) + GRPSEO(1-GRP) + ISET
UO 1180 K=1,4
C
            102 = 10000+55N + K + 1800 + 10+1MAX + 100000+CI
          . (1UENT, 102, CRA(J., DON, DVD(K))
  1180 CONTINUE
  1190 CONTINUE
  1200 CONFINDS
            ENU
/* REQUIRED PLACE FORTRAN BCD SOURCE BEFORE THIS CARD
//LKED.ADDUALE DD DSDSP-MEIB-D15P>SHN.VOL>SER>111.UNIT>DSK
//LKED.SYSIN DD DATA SPACE>ETIK:[5:51]
//LKED.SYSIN
                                                                                                                                                      360 CDS
                               AUULALLI CA7771
INCLUDE
                                                                                                                                                CT19/13 1
                                                                                                                                                 CT12
                                                                                                                                                 CT14
CT14
                               DU DISCN. +P.91497415+DISPYCOLD+PASS1

EU DISCN. +P.91497415+DISPYCOLD+PASS1

EU DISCN. +P.94551-UNITYCA+F5.2.0EFER1+DSNY+E.9897412+

VOLXSLMSI +F5.A+F5.4+F5.0+F5.D+F5.F+F5.G+F5.4F5.H+F5.

I+F3-M+F3-K+F5-K+F5-N+F5.N+F5.0+F5.P+F5.0+F5.R+F5.8+F51
                                                                                                                                                 015-1N
CT22/23 1
//CHG.FTU4FU01 DU
                                                                                                                                                 CT22
//LHG. + (11+001 EU DSN +P. 9897413.015P)C .PASS1.SPACE>CYL. (009,00131
                                                                                                                                                    D25-0UT
/*
//C98978 EXEC
                               C96U3H. FIME>02.ACCT>D353230U7 STDALONE JOHN LINK
                              DU DIS'DE KEEPJ'UNITYEAFT', 2'OEFER J'DSN'**A,9897419*
VULSERN' +F1',A+F1',B+F1',C+F1',D+F1',E+F1',F+F1',G+F1',H+F1',
I+F1',J+F1',K+F1',L+F1',M+F1',N+F1',O+F1',P+F1',Q+F1',R+F1',S+F1']
 //CHG.1012
                                                                                                                                                  CT12/13 1
                                                                                                                                                 CT12
"
                               (U DIS. >( KEEP ).UNIT>( T+F3.1.DEFER ).DSN>+C.9897418.
                                                                                                                                                 CT14
//CHG. (U14
                              VOL>SER>L+F3:A+F3:B+F3:C+F3:D+F3:E+F3:F+F3:G+F3:H+F3:
I+F3:U+F::K+F3:L+F3:M+F3:N+F3:O+F3:P+F3:G+F3:H+F3:S+F3:EU
DSN:PP:9897415:DISP>COLD:DELETE)
DU
DISP>C:KEEP]:UNIT>CT+F5:1:DEFER]:DSN>E:9897412:
VOL>SER>L+F5:A+F5:B+F5:C+F5:D+F5:F+F5:G+F5:H+F5:
I+F5:U+F::K+F5:L+F5:M+F5:N+F5:O+F5:P+F5:G+F5:R+F5:S+F5:DU
DSN:PP:9897413:DISP>COLD:DELETE)
DU
*SPACE>CTRK:(1:1]]
11
//CHG. TU15
                                                                                                                                                    015-IN
//CHG.TU22
                                                                                                                                                  CT22
                                                                                                                                                  CT22
                                                                                                                                                    T22
//CHG. 1U25
 //CHG. TPRIN
T/P TU15
T/P TU25
T/P TU22
T/P TU14
                           1040000208
                           10400002080
                           10400402040
                           10400702076
                 2 10400702076
PLACE T/P CONTROL CARDS BEFORE THIS CARD
TIP
```

6.10.3 SORT AIRCRAFT LEVEL OBSERVATIONS

6.10.4 SORT WUC LEVEL OBSERVATIONS

```
//T9897SB JOB
//C9897H EXEC
//CHG.5ORTIN
DD DISPS*, KEEP], DNITS(A+F5,2,DEFEN],
CT22/23 1
CS(3+E,989/412,
CT22/23 1
CT2/23 1
CT2/22 1
CT
```

6.10.5 MERGE WUC LEVEL OBSERVATIONS

```
//Iggg/MA JOB
//C9897A EXEC
//C9997A EXEC
//
```

6.10.6 OBSERVATION COUNT

```
P9655L,TIME>01.ACCT>035323007
//L98972 EXEC
                        DU DISPS: PASS 7.UNITS(A4F1.2.QEFER1.DSNS+A.9897411.
VOLSERS(+F1.A4F1.B+F1.C+F1.D+F1.E4F1.F4F1.G4F1.H4F1.
I+F1.J+F1.K+F1.L+F1.H4F1.N+F1.O4F1.P+F1.G4F1.R4F1.S4F1)
//CHG. TU12
                        DD
                                                                                                                 CT12/13 1
                                                                                                                 CT12
                                                                                                                   T12
                        U D15P>..PASS].UNIT>LT+F7.1.DEFER].DSN>+6.9897414.
VUL>SER)(+ 7,4+F7.8+F7.C+F7.D+F7.E+F7.F+F7.F+F7.H+F7.
1+F7.J+F7.K+F7.L+F7.M+F7.N+F7.O+F7.P+F7.9+F7.R+F7.S+F7]
DU +.SPACL>LCYL.[1.1]
//CHG.TU24
                                                                                                                 CT24
                                                                                                                 CT24
//
//CHG.INPUT
                                                                                                                   1440 CDS
          IMPUT OD *,SPACES[CYL,[1,1]]
COMDINE COMPILE 6.

DATE-WPITTEN. 19 APR 72.

REMARKS. PHASE 11- TASK IV- OBSERVATION COUNT.

INPUT/OUTPUT - COBOL.

ENVIRONMENT DIVISION.
00000
                                                                                 G. WANG.
                                                                                                                      C98970
01040
                                                                                                                      C98970
01050
                                                                                                                      C98970
01070
                                                                                                                      C98970
                                                                                                                      C98970
02000
           ENVIRONMENT DIVISION,
CONFIGURATION SECTION,
SOURCE-COMPUTER, IUM-360,
OBJECT-COMPUTER, I'M-360,
INPUT-OUTPUT SECTION,
FILE-CONTROL.
                                                                                                                      C98970
02010
02020
                                                                                                                      C98970
02030
                                                                                                                      C98970
02100
                                                                                                                      C98970
02110
                                                                                                                      C98970
                 SELLCT OFILE1

PESERVE 7 ALTERNATE AREA.

SELECT OFILECN
02120
                                                                 ASSIGN TO UT-S-TU12
                                                                                                                      C98970
02130
                                                                                                                      C98970
02140
                                                                 ASSIGN TO UT-S-TU24
                                                                                                                      C98970
           PESERVE 3 SETERNATE AREA.
DATA DIVISION.
02150
                                                                                                                      C98970
10000
                                                                                                                      C98970
10010
           FILE SECTION.
                                                                                                                      C98970
                OFILE1

RECORDING MODE 15 F

BLOCK CUNTAINS 70 RECORDS

RECORD CONTAINS 40
17100
17120
17130
17140
           FD
                                                                                                                      CORSTO
                                                                                                                      C98970
                                                                                                                      C98970
                                                               CHARACTERS
                                                                                                                      C98970
                 RECORD CONTAINS 40
LABEL RECOPUS ARE OMITTED
DATA RECORDS AFE OFILEI-REC.
OFILEI-REC SYNC.
02 FILLER PICTU
17150
                                                                                                                      C98970
17160
                                                                                                                      C98970
17200
                                                                                                                      C98970
17210
                                                       PICTURE XE401.
                                                                                                                       C98970
18100
           FD
                 OFILECNI
RECORDING MODE IS F
BLOCK CONTAINS 90 RECORDS
                                                                                                                      CGRGTO
18120
18130
                                                                                                                      C98970
                 RECURD CONTAINS 30
LABEL RECORDS THE OMITTED
DATA RECORDS ARE OBS-REC-CNT.
18140
                                                               CHARACTERS
                                                                                                                      C98970
18150
                                                                                                                      C98970
C98970
18160
           01 0BS-PEC+CNT SYNC.
02 FILLER
WURKING-STOKAGE SECTION.
18200
                                                                                                                      C98970
                                                       PICTURE XC 30 J.
18210
                                                                                                                      C98970
30000
                                                                                                                      C98970
30130
           01 NIME-30 SYNC.
02 FILLER
                                                                                                                      C98970
                                                 PICTURE XE 253
30140
                                                                         VALUE
                                                                                                                      C98970
30150
                                                     C98970
                                                 PICTURE XEST
                 02 FILLER
30160
                                                                          VALUE
                                                                                                                      C98970
30170
                                                                                                                      C98970
30280
                 02 FILLER
                                                 PICTURE XESO 1
                                                                                                                      C98970
C98970
                                                                          VALUE
                                                     19999999999999999999999999999
                                          PICTURE 9(7) SYNC VALUE ZERO.
PICTURE 9(7) SYNC VALUE ZERO.
PICTURE 5999 SYNC VALUE ZERO COMPUTATIONAL.
PICTURE 9(6) VALUE ZERO COMPUTATIONAL SYNC.
PICTURE 9(6) VALUE ZERO COMPUTATIONAL SYNC.
30310
                 RECURUS-READ
                                                                                                                      C98970
30.320
          01
                 RECUPUS-PASS
                                                                                                                      C98970
30400
                 KOUNT
                                                                                                                      C98970
           01
          01
                                                                                                                      C98970
C98970
51000
                 FIRST-HLC-SW
                 OBS-CNT
          01
31010
                 OBS-SN-CNT
31020
           01
                                                                                                                      C98970
                 0-RLC SYNC.
02 FILLER
02 SN-0
42000
           01
                                                                                                                      C98970
42010
                                                 PICTURE XX
                                                                           VALUE SPACE.
                                                                                                                      C98970
                                                 PICTURE XC61 VALUE SPACE.
PICTURE XC61 VALUE SPACE.
PICTURE X VALUE SPACE.
                       SN-0
                                                                                                                      C98970
42020
42030
                 02
                       10-0
                                                                                                                      C98970
                       FILLER
                                                                           VALUE SPACE.
                                                                                                                      C98970
                       OH-1
FILLER
                                                 PICTURE XC61.
                                                                                                                      C98970
C98970
42040
                 02
                 U2
                                                                           VALUE SPACE.
42045
42050
                        08-2
                                                 PICTURE XE 6 J.
                                                                                                                      C98970
                 02
                                                 PICTURE X
PICTURE XC6J.
PICTURE XX
                       FILLER
OH-3
                                                                           VALUE SPACE.
42055
                 02
                                                                                                                      C98970
                                                                                                                      C98970
42060
                 02
                                                                           VALUE SPACE.
42065
                       FILLER
                                                                                                                      C98970
                                                 PICTURE X
                                                                                                                      C98970
                       PCD-MK-0
42070
                  02
42100
           01
                 O-REC-A SYNC.
                                                                                                                      C98970
42110
                 02
                       SN-A
                                                 PICTURE XEAJ.
                                                                                                                      COROZO
                                                                                                                      C98970
42120
                 O-REC-U SYNC.
                                                                                                                      C98970
42200
           01
42210
                 02
                       SN-H
                                                 PICTURE X[8].
PICTURE X[6].
                                                                                                                      C98970
                       IU-U
                                                                                                                      C98970
42220
                                                                                                                      C98970
C98970
42300
                 O-REC-CHT SYNC.
                                                PICTURE XX VALUE SPACE.
PICTURE X(6].
PICTURE X(6].
PICTURE X(6] VALUE 10000001.
PICTURE X VALUE SPACE.
PICTURE ZZZZZ9 VALUE 10000001.
                 05
                       FILLER
SN-L
42310
42320
                       IU-C
42330
                                                                                                                      C98970
                                                                                                                      C98970
42340
                 02
                  02
                                                                                                                      C98970
                        FILLER
                       SN-UBS-CNT
                                                                                                                      C98970
42355
                 02
                                                 PICTURE X
                                                                           VALUE I#1.
42360
50000
           PROCEDURE UIVISIO! .
                                                                                                                       C98970
           OPEN-EM.
                                                                                                                      C98970
50010
```

```
OPEN INPUT OFILE1 OUIPUT OFILECNT.
                                                                                                                                                   C98970
              REAU-IN.
50030
             READ-IN,

RFAD UFILE1 1'ITU U-REC

AI END GO TO RECURD-KFEP.

IF FIRSI-RFC-3W EQUAL 11: 00 TO TEST-SN.

MOVE 5N-0 T' SN-C.

MOVE 11:-0 T' IU-C.

MOVE 2Ex05 TO 0US-CNT OBS-SN-CNT SN-OBS-CNT.

WOVE 11: TO F.ARST-REC-SW.

GO TO READ- N.

TEST-SN.
                                                                                                                                                   C98970
50040
50450
                                                                                                                                                   C98970
50070
                                                                                                                                                   C98970
50080
                                                                                                                                                   C98970
50090
                                                                                                                                                   C98970
50095
                                                                                                                                                   C98970
50100
                                                                                                                                                   C98970
50105
                                                                                                                                                   C98970
50110
                                                                                                                                                   CORST
                      ADD 1
50115
                                    TO OHS-CHT RECORDS-READ.
                                                                                                                                                   C98970
                      IF SN-O EQUAL SN-C GO TO TEST-ID.
50120
              LAST-CHANGE.
50125
                    T-CHANGE.

MOVE UBS-CNT TO CNT-C.

ADD UBS-CNT TO OUS-SN-CNT.

MOVE UBS-SN-C NT TO SN-OBS-CNT.

ADD 1 TO RECCROS-PASS.

WHITE OUS-REC-CNT FROM O-REC-CNT.

MOVE ZENOS 1) OBS-CNT OBS-SN-CNT SN-OBS-CNT.

MOVE SN-O 17 SN-C.

MOVE 1U-O TO 1D-C.

IF SN-O EQUAL :99999999:

GO TO REC)RU-KEEP.

GO TO REAU-TN.
                                                                                                                                                   COROTA
50130
                                                                                                                                                   C98970
 50140
                                                                                                                                                   COROTA
50150
                                                                                                                                                   C98970
50155
                                                                                                                                                   C98970
                                                                                                                                                   C98970
50170
                                                                                                                                                   C98970
50180
                                                                                                                                                   C98970
50190
50195
                                                                                                                                                   C98970
50196
                                                                                                                                                   C98970
50200
                                                                                                                                                   C98970
              TEST-ID.
50210
                     TID.

IF ID-0 EQUA. ID-C GO TO READ-IN.
MOVE OUS-CNT TO CNT-C.
ADD OBS-CNT TO OBS-SN-CNT.
WRITE OBS-REC-CNT FROM O-REC-CNT.
ADD I TO RECCROS-PASS.
MOVE ZENOS TO OBS-CNT.
MOVE SN-O TO SN-C.
MOVE ID-0 ID ID-C.
GO TO READ-IN.
ORD-REP.
                                                                                                                                                   C98970
50220
50230
                                                                                                                                                   C98970
                                                                                                                                                   COROTO
50240
                                                                                                                                                   C98970
50250
                                                                                                                                                   C98970
50255
                                                                                                                                                   C98970
50260
 50270
                                                                                                                                                   CGRGTO
50280
                                                                                                                                                   C98970
50290
                                                                                                                                                   C98970
             RECORD-FEP.

COMPUTE KOUNT > RECORDS-PASS - ([RECORDS-PASS / 90] + 90].
61000
                                                                                                                                                   C98970
01010
                                                                                                                                                   C98970
             LOCPS.
61020
                                                                                                                                                   C98970
                     WRITE OUS-PUC-ONT FROM NINE-30.
61030
            WHITE OUS-PIC-CNT FROM NINE-30.

ADD I TO KOUNT.

IF KOUNI IS LESS THAN 9U GO TO LOOPS.

CLOSE-FILES.

CLOSE OFILEINT OFILE! WITH LOCK.

UISPLAY: IN : RECORDS-READ UPON CONSOLE.

UISPLAY: OUT : RECORDS-PASS UPON CONSOLE.

DISPLAY: EOJ 9897: UPON CONSOLE.

GORACK.
                                                                                                                                                  C98970
                                                                                                                                                   C98970
61040
61050
                                                                                                                                                   C98970
64000
                                                                                                                                                   C98970
64010
                                                                                                                                                   C98970
64020
                                                                                                                                                   C98970
                                                                                                                                                   C98970
64030
64040
64050
                     GORACK .
                                                                                                                                                  C98970
                 PLACE COBOL SOURCE BEFORE THIS CARD
               FGIN DD +,5PACE\CYL-(1+1)]

PLACE TFG DATA JEFORE THIS CARD

JI2 DD DISP\OLD\KEEP]\VOL\SER\+F1\UNIT\T\+F1

DU4\ DU DISP\OLD\KEEP]\VOL\SER\+F7\UNIT\T\+F7

PRIN DD +\5PACE\ITK\([1]\)
//CHG.TFGIN
//TPR.TU12
//TPR.TU24
//TPR.TPRIN
                             DD
                                       +, SPACE>[TRK,[1,1]]
                 11000302030
PLACE T/P CONTROL CARDS BEFORE THIS CARD
        TU24
```

50020

6.10.7 REGRESSION AND CORRELATION ANALYSIS

```
//C9897T JUB 01,: G. w4NG. :,PRTY>05 XI310
//C9897T EXEC P962T.TIME>1,ACCT>055323007 PUT PROGRAM IN LIBRARY
//CHG.INPUT OD *,SFACE>(CYL.[1,1]] O. WANO.
01040 OATE-WRITTEN. 25 APR 72.
01050 REMARKS. PHASE II - TASK IV- 1I-STATISTICS FORTRAN COBOL LINK.
01070 INPUT/OUTPUT - COBOL.
02000 ENVIRONMENT DIVISION.
02010 CONFIGURATION SECTION.
02020 SOURCE-COMPUTER. IBM-360.
02030 OBJECT-COMPUTER. IBM-360.
02100 INPUT-OUTPUT SECTION.
1/L9897T JUB
                                                                                                                                                                1440 CDS
                                                                                                                                                                     COROTO
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
 02100 INPUT-OUTPUT
02110 FILE-CONTROL.
                INPUT-OUTPUT SECTION.
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
                        LECONTROL.

SELECT OFFILE!

PESCRYE; ALTERNATE AREA.

SELECT OFFILE/NT

RESERVE 1 ALTERNATE AREA.

SELECT STATREPORT

RESERVE ALTERNATE AREA.
                                                                                          ASSIGN TO UT-S-FT01F001
                                                                                                                                                                     C98970
  02130
                                                                                                                                                                     C98970
                                                                                           ASSIGN TO UT-S-FT10F001
                                                                                                                                                                     C98970
  02140
  02150
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
                                                                                           ASSIGN TO UT-S-FT11F001
 02180
  02190
  10000
                DATA DIVISION.
FILE SECTION.
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
  01001
  14100
                         STATREPORT
                                                                                                                                                                     C98970
                        RECORDING MORE IS F
BLOCK CONTAINS 15 RECORDS
RECURD CONTAINS 130
LARLL RECORD ARE OMITTED
  14120
                                                                                                                                                                     CGAGTO
                                                                                                                                                                     C98970
  14130
  14140
                                                                                         CHARACTERS
                                                                                                                                                                     C98970
                                                                                                                                                                     C98970
  14150
```

```
14160
                 DATA HECORDS ARE STATREPORT-REC.
                                                                                                                     C98970
                 STAI-REC SYNC.
U2 FILLER
OFILEI
                                                                                                                     C98970
14200
                                               PICTURE XC 130 3.
14210
                                                                                                                     C98970
                 OFILEI
MECURUNG MODE 15 F
BLOLK CUNTAINS 70 HECORDS
RECURD CONTAINS 40
LABEL PICCORDS AHE OMITTED
DATA RELUNDS AHE OFILEI-REC.
OFILEI-REC SYNC.
UZ FILLER
PICTU
17120
17130
                                                                                                                     C98970
17140
                                                               CHARACTERS
                                                                                                                     C98970
17150
17160
                                                                                                                      C98970
                                                                                                                     COAGTO
17200
           01
                                                                                                                     C98970
                                                      PICTURE X[40].
17210
                                                                                                                     CGAGTO
                 DETICENT
OFFICE OFFI
HECUPULIS MODE IS F
HLOCK CUNTALIS 90 RECORDS
18100
                                                                                                                     C98970
18120
                                                                                                                     C98970
C98970
18130
                 RECORD CONTAINS 30 LAPEL RECORDS ARE OMITTED DATA RECORDS ARE OBS-REC-CNT.
18140
                                                               CHARACTERS
                                                                                                                      C98970
18150
                                                                                                                     C98970
                                                                                                                     C98970
                 OBS-REC-CNT SYNE.
02 FILLER
18200
                                                                                                                      C98970
18210
                                                      PICTURE XC 30 J.
                                                                                                                     C98970
          WORKING-STORAGE SECTION.

10 UNK-130 SYNC.

10 PAR-MX PICTURE X[129] VALUE SPACE.

11 DAG COLT.

12 PAR-MX PICTURE X VALUE :::.
                                                                                                                     C98970
30000
30100
 30110
                                                             VALUE : #: .
SYNC VALUE
SYNC VALUE
SYNC VALUE
SYNC VALUE
SYNC VALUE
30120
                                                                                                                     C98970
30200
                 PAGLENT
                                    PICTURE 9999
                                                                                                                     C98970
                 LINL-LNI PICTURE 99
LINL-MAX-62 PICTURE 99
30210
           01
                                                                                ZERO.
                                                                                                                      C98970
30220
           01
                                                                                62.
                                                                                                                     C98970
                 LINLS-OUT PICTURE 9(6)
FREG-CNT PICTURE 9(6)
OHS-CNT PICTURE 9(6)
EFLAG PICTURE X
FREGEOF PICTURE X
 30230
                                                                                                                      C98970
           01
           01
30240
                                                                                                                     C98970
                                                             SYNC VALUE
SYNC VALUE
SYNC VALUE
SYNC VALUE
SYNC VALUE
           01
30250
                                                                                                                     C98970
30260
                                                                                :01.
                                                                                                                     C98970
30270
                  FREUEOF
                                    PICTURE X
                                                                                                                     C98970
                 STATENT PICTURE X SYNC VALUE 101.

STATENT PICTURE 9(6) SYNC VALUE 0.

RECOMUS-HEAD PICTURE 9(7) SYNC VALUE ZERO.

RECOMUS-PASS PICTURE 9(7) SYNC VALUE ZERO.

REPOME 10 SYNC.
30280
           01
                                                                                                                     C98970
           01
30290
30310
                                                                                                                     C98970
                                                                                                                     C98970
C98970
           01
30320
           UL
                                                                                                                      C98970
30400
                                                                                                                     C98970
12000
           01
                 02 FILLER
                                                             PICTURE X(50) VALUE
32010
                                                                                                                     C98970
                       159897760 TF7919-01 142-8 1 1/2
FILLEH PICTURE X(50) VALUE SPACE.
FILLEH PICTURE X(30) VALUE
32020
                                                                                                                     C98970
                                                                                                                     C98970
32040
                 02 FILLER
                                                                                                                     C98970
32050
                                                                                                                     C98970
                 O-REC STNC.
                                                                                                                      C98970
42000
           01
                                                PICTURE XX VALUE SPACE.
PICTURE X(8) VALUE SPACE.
PICTURE X(6) VALUE SPACE.
PICTURE X VALUE SPACE
                 02 FILLER
02 SN-U
42010
                                                                          VALUE SPACE.
                                                                                                                     CGAGTO
                                                                                                                     C98970
42020
42030
                       10-0
                                                                                                                     C98970
                       FILLER
                                                                          VALUE SPACE.
42035
                 02
                                                                                                                     C98970
42040
                 02
                       08-1
                                                 PICTURE XL61.
                                                                                                                     C98970
                                                 PICTURE X
                                                                          VALUE SPACE.
                       FILLER
42045
                 02
                                                                                                                     C98970
                       OU-Z
FILLER
                                                 PICTURE XL61.
                 02
                                                                                                                     C98970
42050
                                                 PICTURE X
PICTURE X(6).
42055
                                                                          VALUE SPACE.
                                                                                                                     C98970
                                                                                                                     C98970
                       C+3-5
42 un U
                 02
                                                                          VALUE SPACE.
                                                PICTURE XX
                       FILLER
                                                                                                                      C98970
42065
                 02
                       FC1)-MK-0
42070
                 02
                                                                                                                     COASTO
                 O-PEC-CHT ! YHC.
                                                                                                                     C98970
42560
                                                PICTURE XX
PICTURE XC61.
PICTURE XC61.
42510
                 02
                       FILLER
                                                                          VALUE SPACE.
                                                                                                                     C98970
                       514-6
                                                                                                                     C98970
42320
                 02
42350
                 02
                                                      TURE X(6) VALUE 10000001,
PICTURE X VALUE SPACE,
PICTURE ZZZZZY VALUE 10000001,
42 140
                 02
                       CINT-C
                                                 PICTURE XL63
                                                                                                                     C98970
                       FILLER
                                                                                                                     C98970
42350
42355
                 02
                       SIN-UBS-CHT
                                                                                                                      C98970
                 02
                       RLI)-MK-C
                                                 PICTURE X
                                                                          VALUE I#1.
                                                                                                                     C98970
                 TITLE-0 SYLC.
                                                                                                                     C98970
44000
          01
                                                                   VALUE :1:.
VALUE SPACE.
VALUE :CORRELATION, REGI.
VALUE :RESSION STATISTICS:.
VALUE SPACE.
VALUE :PAGE 1.
                       CAH-0
                                           PICTURE X
44010
                 02
                                          PICTURE XC451
PICTURE XC161
44020
                       FILLER
                                                                                                                     C98970
                       T-1-52-64
T-1-65-85
                                                                                                                     C98970
44030
                 02
                                          PICTURE X(18)
PICTURE X(18)
PICTURE X(5)
PICTURE X(5)
PICTURE ZZZY
PICTURE XX
44 140
                                                                                                                     C98970
                       FILLER
44050
                 02
                                                                                                                     COAGTO
                       PAGL-NU-0
44060
                 02
                       PAGE -C 'T
44670
                                                                                                                     COAGTO
                                                                    VALUE SPACE.
                                                                                                                     C98970
44480
                 02
                 02 T-0-RECMK
TITLE-HLK YNC.
02 CAH-BL
                                          PICTURE X
                                                                                                                     C98970
C98970
44100
          01
                                          PICTURE X
PICTURE XI 1243
                 02 CAM-BL PICTURE AL DE TILLER PICTURE X SY. C.
                                                                   VALUE SPACE.
VALUE SPACE.
VALUE 1#1.
46110
44120
                                                                                                                     COAGTO
                                                                                                                     C98970
44130
44200
          01
                 TITLE-1 SY. C. 02 CAH-1
                                                                                                                     C98970
                                          PICTURE X
                                                                          VALUE SPACE.
                                                                                                                     C98970
44210
                                          PICTURE X(8).
PICTURE X(6).
PICTURE X(5)
44220
                       SH-H
44250
                       1U-H
                                                                                                                     C98970
44240
                       CC-H
                 02
                                                                          VALUE : CC> 1.
                                                                                                                     C98970
                       CC-U-R
                                          PICTURE -( 7 ]. 9(5).
PICTURE X(4)
44250
                                                                                                                     C98970
                                                                          VALUE I AD I.
                                                                                                                     C98970
44260
                 n2
                                          PICTURE -CAJ. 9053.
44270
                 02
                       H-(1-A
44280
                 02
                       B-H
                                                                          VALUE 1 8> 1.
                                                                                                                     C98970
                                           PICTURE -[ 8 ]. 9( 5 ].
                       8-()-R
44290
                 02
                                                                                                                     C98970
                                          PICTURE XEAT
                                                                          VALUE 1 SER> 1.
44300
```

```
PICTURE -[8].9[5].
PICTURE X[6]
PICTURE -[8].9[5].
PICTURE X[4]
PICTURE X[4]
44310
                        SEH-D- !
                                                                                                                          C98970
                        SEL-R
SEE-D-R
F-R
F-U-R
                                                                             VALUE I SEE> 1.
44320
                  02
                                                                                                                          C98970
44330
                  02
                                                                                                                          C98970
44340
                                                                             VALUE : F> :.
                                                                                                                          C98970
44350
44360
                  02
                                                                                                                          C98970
                  02 FILLER
02 T-1-RECMK
TITLE-2 SYNC.
                                            PICTURE X
                                                                             VALUE SPACE.
44 570
                                                                             VALUE :#:.
                                                                                                                          C98970
44400
                                                                                                                          C98970
                                            PICTURE X
PICTURE X(14)
PICTURE X(7)
PICTURE X(7)
PICTURE X(8)
PICTURE X(9)
                                                                             VALUE SPACE.
VALUE SPACE.
VALUE : XBAR> 1.
44410
                  02
02
                        CAR-2
                                                                                                                          C98970
                       FILLEF
44420
                                                                                                                          C98970
44430
                        XHAK-B
                                                                                                                          C98970
                        XBAK-D-R
44440
                  02
                                                                                                                          C98970
44450
                        XSIG-R
                                                                             VALUE I XSIGMA> I.
                                                                                                                          C98970
                                            PICTURE -(83.9(5).
PICTURE X(7)
                        X510-D-R
YBAK-R
44460
                  02
                                                                                                                          COROTO
                                                                             VALUE : YBAR> I.
                  U2
                                                                                                                          C98970
                        YBAK-L-R
                                            PICTURE -[8].9[5].
PICTURE X[9]
444AD
                  u2
                                                                                                                          C98970
                                                                             VALUE : YSIGMA> I.
44490
                  02
                                                                                                                          C98970
                                            PICTURE TEB1.9(5).
PICTURE X(4)
PICTURE X(2)
PICTURE X(16)
PICTURE X(16)
PICTURE X
44500
                        YSIG-D-R
                                                                                                                          C98970
                                                                             VALUE : N> 1.
44510
                  02
                        N-H
                                                                                                                          COAGTO
44520
                        N-D-R
                                                                                                                          C98970
                  υ2
                        FILLER
T-2-RECMK
                                                                             VALUE SPACE.
                                                                                                                          C98970
44530
                  u2
44540
                  U2
           LINKAGE SECTION.
77 ISNUE PICTURE SEEBJ
48000
                                                                                                                          C98970
48010
                                                         COMPUTATIONAL SYNC.
                                                                                                                          C98970
                              PICTURE S9E8J
PICTURE S9E6J
PICTURE S9E6J
PICTURE S9E6J
PICTURE S9E6J
                                                         COMPUTATIONAL SYNC.
COMPUTATIONAL SYNC.
COMPUTATIONAL SYNC.
                  IDNOF
48020
                                                                                                                          C98970
48030
                  JERLO
                                                                                                                          C98970
                  15NO
48040
                                                                                                                          C98970
48050
                  IDO
                                                         COMPUTATIONAL SYNC. COMPUTATIONAL SYNC.
                                                                                                                          C98970
                  1081
48060
                                                                                                                          C98970
                                                         COMPUTATIONAL SYNC.
COMPUTATIONAL SYNC.
COMPUTATIONAL SYNC.
COMPUTATIONAL SYNC.
COMPUTATIONAL SYNC.
           77
77
77
                               PICTURE S9E61
PICTURE S9E61
PICTURE S9E81
                  1082
48070
                                                                                                                          C98970
48080
                  1003
                                                                                                                          C98970
                  FSNS
48090
                                                                                                                          C98970
           77
77
48100
                  FID
                               PICTURE S9[6]
                                                                                                                          C98970
                  FCOKR
48110
                                                                                                                          C98970
                                                                COMPUTATIONAL-1 SYNC.
COMPUTATIONAL-1 SYNC.
COMPUTATIONAL-1 SYNC.
                  FINTER
                                                                                                                          C98970
48120
           77
77
48130
48140
                  FSLUPE
                                                                                                                          C98970
                                                                                                                          C98970
                  FSTUEV
           77
77
                                                                COMPUTATIONAL-I SYNC. COMPUTATIONAL-I SYNC.
48150
                  FSTUEL
                                                                                                                          C98970
                                                                                                                          C98970
48160
                  FOUL ST
48170
                  FXEAR
                                                                COMPUTATIONAL-I SYNC.
                                                                                                                          C98970
                                                                COMPUTATIONAL-1 SYNC.
COMPUTATIONAL-1 SYNC.
48180
           77
77
                  FXSIG
                                                                                                                          C98970
                                                                                                                          C98970
48190
                  FYRAH
                  FYSIG
                                                                COMPUTATIONAL-I SYNC.
40200
                                                                                                                          C98970
           77 IFREO PICTURE S9E63
77 ITI FICTURE S9E63
PROCEDURE DIVISION.
                                                                COMPUTATIONAL SYNC.
                                                                                                                          C98970
C98970
48210
48220
                                                                                                                          C98970
50000
           STATS-IN.
ENTRY
50010
                                                                                                                          C98970
                               COUFRO: USING ISNOF.
                                                                     IDNOF. JFREG.
                                                                                                                          C98970
50U20
                  IF EFLAC EQUAL :1: 00 TO FREG-IN. OPEN INPUT OFILECNT OFILEI.
50030
                                                                                                                          C98970
50040
                                                                                                                          C98970
                  OPEN INPUT OFILECHT OFILEI.

OPEN OUIPUT STATREPORT.

MOVE :1: :0 EFLAG.

WRITE STATEC FROM REPORT-ID.

ADD I TO 'INES-OUT.

PERFORM PAGE-FLIP THRU PAGE-FLIP-EXIT.
50050
50060
                                                                                                                          C98970
                                                                                                                          C98970
50062
50064
                                                                                                                          C98970
C98970
50070
55100
           FREQ-IN.
PERFORM FEAD-FREQ THRU READ-FREQ-EXIT.
                                                                                                                          C98970
55110
                                                                                                                          C98970
           PERFORM FIGURERS THRU READSPRESSETT,

IF FEGURE EQUAL 111 80 TO FREGREXIT,

AND 1 10 THE GREAT,

MOVE LINK STAFE,

MOVE SN-C TO ISNOF,

MOVE ID-C TO IDNOF,

MOVE CNT-1 TO JFREG.
                                                                                                                          C98978
Bh 1 10
bh140
                                                                                                                          L98970
                                                                                                                          C98970
55150
55160
                                                                                                                          C98970
55170
                                                                                                                          C98970
55200
           FREQ-EXIT.
55210
                  GORACK
                                                                                                                          C98970
           OBSERVATIONS-IN.
ENTRY :: 08085: USING ISNO, IDO, IOB1, IOB2, IOB3.
                                                                                                                          C98970
56010
56020
                                                                                                                          C98970
           085-IN.
56030
                                                                                                                          C98970
           OBS-IN.

PERFORM PEAD-OBS THRU READ-OBS-EXIT.

IF OBSECT.

ADD I TO OBS-CNT.

MOVE-LINX-OBF.

MOVE SN-O TO ISNO.

MOVE UB-C TO IDO.

MOVE UB-C TO IOBI.

MOVE UB-S TO IOBI.

MOVE UB-S TO IOBI.

MOVE OB-S TO IOBS.
56040
                                                                                                                          C98970
                                                                                                                          C98970
56050
56060
                                                                                                                          C98970
56470
                                                                                                                          C98970
56080
                                                                                                                          C98970
56090
                                                                                                                          C98970
56100
                                                                                                                          C98970
56110
                                                                                                                          C98970
56120
                                                                                                                          C98970
56200
           OUS-EXIT.
                                                                                                                          C98970
                                                                                                                          C98970
56210
                  GORACK.
57000
           REPURT-OUT.
                                                                                                                          C98970
                 ENTRY .COBOT21 USING FSNS, FID, FCORR, FINTER, FSLOPE, FSTUE, FSTUE, FQUEST, FXBAR, FXSIG, FYBAR, FYSIG,
57010
                                                                                                                          C98970
57020
                                                                                                                          C98970
57030
                        IFR. O.
                                                                                                                          C98970
                  WRITE STAT-REC FROM TITLE-BLK.
57040
                                                                                                                          C98970
57050
                                                                                                                          C98970
                                     TO SN-R.
                 MOVE FINS
57060
                                                                                                                          C98970
```

```
MOVE FCGRR TO
MOVE FIN'ER TO
MOVE FSLOPE TO
MOVE FSLOEV TO
MOVE FSLOEV TO
MOVE FSLOES TO
MOVE FSLOES TO
                                                                                                                                  C98970
57080
57090
57100
                                              A-D-R.
8-D-R.
                                                                                                                                  C98970
                                              SER-D-R
                                                                                                                                  C98970
                                             SEE-D-R.
                                                                                                                                  C98970
57120
                   MOVE FOUTST TO F-. -R. WRITE STAT-REC FROM TITLE-1.
57130
                                                                                                                                  C98970
                                                                                                                                  C98970
57150
           MOVE FXS R TO
57160
57170
57180
                                             XBAK-D-R.
XSIG-D-R.
                                                                                                                                  C98970
                                                                                                                                   C98970
                  MOVE FXSTG TO XSIG=D-R.

MOVE FYDAR TO YBAR-D-R.

MOVE FYS.G TO YSIG=D-R.

MOVE IFHIO TO N-D-R.

WRITE SIAT-REC FROM TITLE-2.

ADD I TO STATENT.

ADD 3 TC LINE-CHT LINES-OUT.

IF LINE-CHT EQUAL LINE-MAX-62

PERFORM PAGE-FLIP THRU PAGE-FLIP-EXIT.

DRI-GUIT-LAIT.
                                                                                                                                  C98970
                                                                                                                                  C98970
57200
                                                                                                                                  C98970
57210
57220
                                                                                                                                  C98970
57225
                                                                                                                                  C98970
                                                                                                                                  C98970
57240
57250
            REPORT-OUT-LATT.
57300
                                                                                                                                  C98970
                  GOBACK.
                                                                                                                                  C98970
57310
59000
            READ-FREQ.
                                                                                                                                  C98970
                   READ OFILECNT INTO O-REC-CNT
59u10
                                                                                                                                  C98970
                   AT END GO TO FREQ-EOF.

IF SN-C EQUAL 199999999 MOVE SN-C TO ISNOF GO TO FREQ-LOF.
59020
59030
                                                                                                                                  C98970
                                                                                                                                   C98970
59040
59050
                   GO TO READ-FREG-EXIT.
                                                                                                                                   C98970
59060
            FREU-EOF.
MOVE :1: TO FREGEOF.
                                                                                                                                  C98970
59080
            REAU-FRLQ-EXIT.
59100
                                                                                                                                  C98970
                                                                                                                                  C98970
59200
            REAU-ORS.
           REAU-ORS.

REAU OF!'EI INTO O-REC

AI END GO TO OBS-EOF.

IF SN-U EQUAL :999999999 MOVE SN-O TO ISNO

GO .0 OUS-EUF.

GO TO Pt AD-ORS-EXIT.

OBS-EOF.

MOVL :1: TO OHSLOF.

REAU-OPS-EXIT.

PAGL-FLIP.
                                                                                                                                   C98970
59210
59220
                                                                                                                                  C98970
59230
59240
                                                                                                                                  C98970
59250
59260
                                                                                                                                  C98970
                                                                                                                                   C98970
                                                                                                                                  C98970
                                                                                                                                  C98970
59300
59400
            PAGL-FLIP.
           PAGL-FLIP.

MOVE ZEMO TO LINE-CNT.

MOVE PAGECNT TO PAGE-CNT.

WRITE S AT-REC FROM TITLE-BLK.

WRITE S'AT-REC FROM TITLE-BLK.

ADD 2 TO LINES-OUT.

WRITE S'AT-REC FROM TITLE-BLK.

ADD 2 TO LINES-OUT.

WRITE S'AT-REC FROM TITLE-BLK.

ADD 2 TO LINE-CNT LINES-OUT.

PAGE-FLIP-EXTT. EXIT.
59405
59410
                                                                                                                                  C98970
                                                                                                                                  C98970
59420
                                                                                                                                  C98970
59422
                                                                                                                                  C98970
59424
                                                                                                                                  C98970
59420
59430
                                                                                                                                  C98970
59440
                                                                                                                                  C98970
                                                                                                                                   C98970
59490
                                                                                                                                  C98970
           BLUCK-CHECK.

ENTRY :CLOSEF: USING TT1.

COMPUTE KOUNT > LINES-OUT - CCLINES-OUT / 15] * 15].
61000
                                                                                                                                  C98970
                                                                                                                                  C98970
61020
                                                                                                                                  C98970
           WRITE STAT-REC FROM TITLE-BLK.
ADD I TO KOUNT.
ADD 1 TO KOUNT.
61030
51940
                                                                                                                                  C98970
61050
           TE KOUNT IS LESS THAN IS GO TO LOOPS.

CLOSE-FILES.

CLOSE OFILECNI OFILE1 STATREPORT WITH LOCK.

DISPLAY: FREQ-IN: FREQ-CNT UPON CONSOLE.

DISPLAY: STATS-O: STATCNI UPON CONSOLE.

DISPLAY: STATS-O: STATCNI UPON CONSOLE.
61060
                                                                                                                                  C98970
64000
                                                                                                                                  C98970
64010
                                                                                                                                  C98970
64020
                                                                                                                                  C98970
64030
64040
                                                                                                                                  C98970
C98970
                   DISPLAY : EOJ 9897: UPON CONSOLE.
64050
64060
//CHG.SYSIN DD DATA, SPACE > [TRK, [], 1]]
           C8775[RJ
//C9897U LXEC P96-5G,PARM.ASSY)(MAP.LIST,BCD).
                                                                                                                             C
                          PAH 4.LKED>:LIST, XREF:, TIME>04, ACCT>D35323007
DD DATA, SPACE>ECYL, C1, 13
//ASSY.5Y51N
                                                                                                                          . 1440 CDS
               FUHTRAN-CUBOL LINK TEST. JOHN LINK.
                                                                                        KELLY S.
           27 APHIL 1972
THIS IS THE URIVER TO CALCULATE THE STATISTICS
         DIMENSION X(10000), XBAR(2), STD(2), SKEW(2), CURT(2), C(2), S(4), B(4), I A(4), N(4), F(4), IDATA(3), IDI(2), ID2(2)
          DIMENSTON BADIES
          INTEGER OFILET, OFTLE 2, OUT
          MAX = 5000

DAU(1) = -9999

BAU(2) = -9949

MIN = 4
          READ FREGUEISY TAPE
     10 CONTINUE
          CALL CORFRY (ID1(11, ID1(2), NUMBER)
```

```
C
         CHECK FOR BLOCKING FLAG
    1F (101(1) - 99999999) 20,1000,1000
20 CONTINUE
    CHECK FOR MINIMUM NUMBER OF OBSERVATIONS
IF (NUMBER - MIN) 10:30:30
CHECK FOR MAXIMUM NUMBER OF OBSERVATIONS
30 IF (NUMBER - MAX) 40:40:800
    40 NSKIP = 0
         READ OBSERVATION TAPE AND POSITION IT
¢
   300 CONTINUE
   300 CONTINUE
CALL COBORS (102(1),102(2),1DATA(1),1DATA(2),1DATA(3))
CHECK 10 ON OBSERVATION TAPE VS 10 ON FREQUENCY TAPE
1F (101(1) - 102(1)) 10,310,300
310 1F (101(2) - 102(2)) 10,320,300
c
   320 CONTINUE
DO FIRST POINT
IF (IDATA(2)) 325,322,325
   322 CONTINUE
         IDATA(2) =
   325 CONTINUE
X(I) = FLOAT (IDATA(I))/FLOAT(IDATA(2))
         J=NUMPER+)
A(J) = FLOAT(IDATA(3)) / 10.0
  CALL COBOBS '1D2(1):ID2(2):IDATA(1):IDATA(2):IDATA(3))
IF (IDATA(2): 385:382:385
382 CONTINUE
        IDATA(2) = 1
   385 CONTINUE
        X(1) = FLOAT(IDATA(1))/FLOAT(IDATA(2))

J = NUMBER + 1

X(J) = FLOAT(IDATA(3)) / 10.0
  390 CONTINUE
        DO DATA CONFILATION AND REGRESSION ANALYSIS
CALL MISH (NUMBER:NVAR:X:BAD:XBAR:SID:SKEW:CURT:R:N:A:B:S:IER)
IF (IER) 500:405:500
   405 CONTINUE
  CALL SEESUB IN WHITE STATIS; ICS
                                     ISTO RILISEE FT
       / CONTINUE.
CALL COPOT2
+(ID1(1)+D1\2)+R(L)+A(L)+B(L)+S(L)+SEE+F+XBAR(2)+STD(2)+XBAR(1)+
* STD(1)+NUML\2R)
GO TO READ IN NEXT FREQUENCY
   GO TO 10
500 CONTINUE
         R(L) = 0.0
A(L) = 0.0
U(L) = 0.0
         S(L) = 0.0
SEE = 0.0
         F = 0.0
STD(1) = 0.0
STD(2) = 0.0
   GO TO 407
BOO CONTINUE
         NSKIP = NUMBER / MAX
NUMBER = NUMBER / (NSKIP + 1)
1000 CONTINUE
         CHOSE ALL FI.ES

ITI = 0

CALL CLOSEF (
         CALL EOJMSG
                                                                                                            MISR
                                                                                                                     0
         SUBROUTINE MASR (NO.M.X.CODE.XBAR.STD.SKEW,CURT,R.N.A.B.S.IER)
         DETAIL LEVEL STATISTICAL ANALYZER - SUB MISR
                                                                                                            MISR
                                                                                                                     10
                                                                                                            MISR
         FOR A DESCRIPTION OF MISR USAGE AND EXPLANATION OF TERMS.
                                                                                                            MISR
                                                                                                                     30
            SEE THE SS. /360 MANUAL.
C
                                                                                                                     50
         DIMENSION X(1), CODE(1), XBAR(1), STD(1), SKEW(1), CURT(1), R(1), N(1)
                                                                                                            MISR
                                                                                                            MISR
MISR
                                                                                                                     60
70
         DIMENSION A(1) .B(1) .S(1)
Ç
              COMPUTE MEANS
```

```
M1SR 90
M1SR 100
M1SR 120
M1SR 120
M1SR 130
M1SR 150
M1SR 160
M1SR 170
M1SR 200
M1SR 220
M1SR 220
M1SR 240
M1SR 240
M1SR 250
M1SR 250
M1SR 250
M1SR 260
C-
             IFR±0
              L=U
             UO 50 J=1.M
              0.0=(L) HAHK
      XHAK(J)=0.0

U0 20 1=1:N0

L=L+1

IF (X(L)=CUD_(J)) 10:20:10

10 FN=FN+1.0

XBAR(J)=XBAR'J)+X(L)

20 CONTINUE

IF (FN) 30:3 :40

30 XBAK(J)=0.0
       GO TU 50
40 XHAR(J)=XBAR.J)/FN
       50 LONTINUE
                   SET-UP WORK AREAS AND TEST WHETHER DATA IS MISSING
                                                                                                                                                          MISR 290
MISR 300
MISR 310
             L=0
             00 260 J=1.M
             SKE#(J)=0.0
CURT(J)=0.0
KI=M#(J-1)
                                                                                                                                                         MISR 320
MISR 340
MISR 350
MISR 360
MISR 360
MISR 360
MISR 380
MISR 490
MISR 490
MISR 470
MISR 450
MISR 450
MISR 450
MISR 500
MISR 500
MISR 500
MISR 550
MISR 550
MISR 550
             KJ=J-M
             KI=KI+I
KJ=KJ+M
             5UMX=0.0
             5UMY=0.0
              11=U.0
              13=0.0
              fII=0.0
              1JJ=0.0
              114=0.0
             (41J=0
             L1=110+(1-1)
             LJ=LJJ
             L=L+I
             DO 90 K=1.NO
             LJ=LJ+I
      1F (x(L1)-COUE(I)) 60,90,60
60 IF (x(LJ)-COLE(J)) 70,90,70
000
                . HUTH DATA ARE PRESENT
                                                                                                                                                          M15R 560
                                                                                                                                                          MISR 570
MISR 540
       70 XX=X(L1)-XBAK(1)
                                                                                                                                                         MISR 690
MISR 600
MISR 620
MISR 630
MISR 650
MISR 650
MISR 670
MISR 770
MISR 720
MISR 720
MISR 740
MISR 740
MISR 750
MISR 760
MISR 760
MISR 760
MISR 860
MISR 880
             (LI HAUX-(LJ) x=YY
             11=11+XX
             TII=|||+XX++2
              17=17+44
             TJJ=TJJ+YY++
             TIJ=TIJ+XX+YY
            NIJ=NIJ+1
SUMX=SUMX+X(L )
             SUMY=SUMY+X(L J)
      1F (1-J) 90:80:80
80 SKE*(J)=SKE*(J)+YY**3
CURT(J)=CURT(J)+YY**4
      90 CONTINUE
                   COMPUTE SU! OF CROSS-PRODUCTS OF DEVIATIONS
            1F (NIJ) 110.110.100
   100 FM:NIJ
H(L)=T1J-T1+T 'VFN
N(L)=NIJ
             111=111-T1+T1/FN
             TJJ=TJJ=TJ+TJ. FN
                  COMPUTE STANDARD DEVIATION, SKEWNESS, AND KURTOSIS
   110 IF (I-J) 180, 20,180
120 IF (MIJ-2) 130,130,140
130 IEH=1
K(L)=1,0L75
A(KI)=1,0E75
                                                                                                                                                          MISR 890
MISR 900
MISR 910
            B(K1)=1.0E75
            S(K1)=1.0E75
60 TO 160
```

```
M15R 920
M15R 930
   140 STD(J)=R(L)
        R(L)=1,0
A(K1)=0,0
                                                                                                         M1SR 940
                                                                                                        M1SR 950
M1SR 960
        B(K1)=1.0
        5(K1)=0.0
                                                                                                        M1SR 970
                                                                                                        M15R 980
M15R 990
         1F (STD(J)-(1.0E-20)) 150:150:170
   150 1ER=2
                                                                                                        M15R1000
   160 STD(J)=1.0E75
                                                                                                         M15R1010
        SKEW(J)=1.0E75
CURT(J)=1.0E75
                                                                                                        M15R1020
                                                                                                         M15R1030
         60 TO 260
                                                                                                        M15R1040
                                                                                                        M15R1050
   170 WORK=STD(J)/FN
                                                                                                         M15R1060
        SKEW(J)=(SKEW(J)/FN)/(WORK+SQRT(WORK))
CURT(J)=((CURT(J)/FN)/WORK++2)-3,0
                                                                                                        M15R1070
M15R1080
         STD(J)=SQRT(STD(J)/(FN-1,0))
                                                                                                         M15R1090
                                                                                                        MISR1100
MISR1110
        GO TO 260
             COMPUTE REGRESSION COEFFICIENTS
                                                                                                        M15R1120
                                                                                                        M15P1130
   180 1F (N1J-2) 190:190:210
                                                                                                         M15R1140
   190 1ER=1
200 R(L)=1.0E75
A(K1)=1.0E75
                                                                                                        M15R1150
                                                                                                         M15R1160
                                                                                                        M15R1170
M15R1180
        b(K1)=1.0E75
        S(K1)=1.0E75
A(KJ)=1.0E75
                                                                                                        M15H1190
                                                                                                        M15R1200
        U(KJ)=1.0F/5
                                                                                                        M15P1210
                                                                                                        M15R1220
M15P1230
        5(KJ)=1.0E75
        GO TU 250
                                                                                                        M15R1240
  210 1F (||11-(1.0c-0)) 230.230.220
220 1F (||JJ-(1.0c-20)) 230.230.240
230 1ER=2
                                                                                                        M15R1250
M15R1260
                                                                                                        M15R1270
        GO TO 200
                                                                                                        M15R1280
                                                                                                        M15P1290
   240 SUMX=SUMX/FN
                                                                                                        M1581300
         SUMY=SUMY/FIL
                                                                                                        M15#1310
        B(K1)=R(L)/T11
                                                                                                        M15R1320
         A(K))=SUMY-B(F1)+SUMX
                                                                                                        M15R1330
        B(KJ)=R(L)/TJJ
A(KJ)=SUMX=B(KJ)+SUMY
                                                                                                        M15R1340
                                                                                                        M15R13S0
                                                                                                        M15R1360
             COMPUTE CORRELATION COEFFICIENTS
                                                                                                        M1SR1370
MISR1380
                                                                                                        M15R1390
M15R1400
        H(L)=R(L)/(SuR.(T11)*SuRT(TJJ))
c
             COMPUTE STANDARD ERRORS OF REGRESSION COEFFICIENTS
                                                                                                        MISR1410
                                                                                                        M15R1420
                                                                                                        M15R1430
        RR=H(L)++2
        SUMX=(TJJ-TJJ+RR)/(FN-2)
S(K1) = SQRT (SUMX/T11)
SUMY=(T11-T11+RR)/(FN-2)
                                                                                                        M15R1440
M15R1460
                                                                                                        MISR1470
                                                                                                        M15R1490
M15R1500
        S(KJ) = SGRT (SUMY/TJJ)
  250 CONTINUE
                                                                                                        M15R1510
                                                                                                        M15R1520
  260 CONTINUE
С
                                                                                                        M15R1530
                                                                                                        M15R1540
M15R1550
        F NU
          SUBROUTINE SEEJUD (N. STD. R. K. SEE. F)
                                                                                                        SEEB
        DETAIL LEVEL S"ATISTICAL ANALYZER - SUB SEESUR
                                                                                                        SEEB 10
SEEB 20
SEEB 30
        SUB TO COMPUTE STO ERROR OF ESTIMATE AND F LEVEL.
        DIMENSION N(1", R(1)
                                                                                                        SEEB
SEEB
                                                                                                                40
50
        SEE = 0.0
F = 0.0
                                                                                                                 60
70
    F = 0,0
FN = N(K)
1F (H(K) = 1,1' 5,5,20
5 IEMP = 1,0 = R(K) eR(K)
1F (TEMP) 20,20,10
10 SEE = STD + SGHT (TEMP)
F = K(K) eR(K) + (FN-2,0) / TEMP
                                                                                                        SEEB
                                                                                                        SEEB
                                                                                                                 90
                                                                                                        SEEB 100
SEEB 110
SEEB 120
    20 RETURN
        END
                                                                                                         SEEB 140
/* REQUIREU PLACE FURTRAN BCD SOURCE BEFORE THIS CARD
//LKED.ADUCALL DU USN>PGMLIB.DISP>SHR.VOL>SER>111.UN1T>DSK
//LKED.SYSIN OU D.TA.SPACESETRK.E5.SJJ
INCLUDE AUDCA: LECATTSJ
                                                                                                         360 CDS
/* REQUIRED PLACE LINKEDIT CONTROLCARDS IF ANY BEFORE THIS CARD 
//CHG.FTU1F001 DU LISP>[.PASS].UNIT>[.AFF1.2.DEFER].DSN>+A.9897411.
// VOC>S(R)(+F1.A+F1.H+F1.C+F1.D+F1.E+F1.F+F1.G+F1.H+F1.
                                                                                                      CT12/13 I
                     1+F1+. +F1+K+F1+L+F1+M+F1+N+F1+O+F1+P+F1+Q+F1+R+F1+S+F1) T12
```

```
//CHG.F11HF001 Cu PISPSC+PASS 1+UHITSC 1+F7+1+UEFER 1+DSN>+G.9497414.
                                                          T15-72 PASS 1-04173 (**P.7-1-04-FR 1-05N)*6.9997418;

CT2*
VOLDSEAD1 + F / 1-44 F 7.104 F 7.7-64 F 7.0 PF 7.6 PF 7.6 PF 7.9 PF 7.4 PF 7
  //CHG.F111F001 TU
 11
11
 //L9897U EXEC
                                                          C9003H+TIME>02+ACCT>0353230U7 STDALONE JOHN LINK
                                                           Du 615026 ,PASS I, UNIT > [ AFF1, 2, DEFEN I, DSN>+A, 9897411, VOL>St 9>( +F1, A+F1, B+F1, C+F1, D+F1, E+F1, F+F1, G+F1, M+F1,
 //CHG. 1012
                                                          //CHG. 1U24
                                                                            015P2C+P4551,UNIT2C1+F4,10FF7,P+F7,0+F7,R+F7,S+F73 124
015P2C+P4551,UNIT2C1+F4,1,UEFER1+O5N2+H,9897425, CT25
5L23C+F4+A+F8,4+F8,C+F4+D+F4+E+F8+F4+G4+G4+G4+G4+
//CHG. 1025
                                                          VOL25E3C+F8.A+F8,B+F8,C+F8.D+F8.E+F8.F+F8.G+F8.H+F8.

I+F0. +F8.K+F8.L+F8.M+F8.N+F8.O+F8.P+F8.Q+F8.R+F8.5+F8.]

OU +:SPACE>(TRK+(1:1))
//CHG.TPRIN
T/P TU25
T/P TU24
                                                          DU
                                                  19981308000
                                                   10020302.130
T/P TU12
                                                  10020402340
                                 PLACE TYP CONTROL CARDS BEFORE THIS CARD
                                                       T/P CONTROL CARDS BEFORE THIS CARD

C96u3N:TIME>02.ACCT>035323007 STDALONE JOHN LINK

DD LSP)(:KEEP];UNIT)(A+F1:2.UEFER];DSN>*A.9897411;

VUL>SE?)(:F1:A+F1:8+F1:C+F1:D+F1:C+F1:F+F1:G+F1:H+F1:C+F1:S+F1)

I+F1:A+F1:A+F1:B+F1:M+F1:N+F1:O+F1:O+F1:O+F1:O+F1:O+F1:S+F1)

T12

UD LISP)(:KELP];UNIT)(T+F7:DEFER];DSN>*G.9897414;

VOL>SE?)(:F7:A+F7:H+F7:C+F7:D+F7:E+F7:F+F7:G+F7:H+F7;

I+F7:C+F7:B+F7:C+F7:D+F7:C+F7:F7:F7:G+F7:H+F7;

I+F7:C+F7:B+F7:C+F7:D+F7:C+F7:F7:F7:G+F7:S+F7]

T24
//C9891U EXEC
//CHG. TU12
                                                                                                                                                                                                                                                                                    CT12/13 1
//CHG. TU24
                                                                                                                                                                                                                                                                                                                   3
11
                                                          OU UISPX( *KEEP 1.UNIT)( T+F8,1.0EFER 1.DSN)+H.9897425,
VUL)St !>( +F8,4+F8,8+F8,6+F8,F+F8,F+F8,F+F8,6+F8,H+F8,
//CHG, 1025
                                                                                                                                                                                                                                                                                    CT 25
                                                          I+FB.J.FB.K+FB.L+FB.M+FB.N+FB.O+FB.P+FB.G+FB.R+FB.S+FB.
                                                           DU . SPACE SETRE,[1,13]
//CHG. IPRIN
                                                   1998130R100
T/P TU25
                                                   10020302030
                                                   1002040Z 40
                                  PLACE TYP COUTROL CARDS BEFORE THIS CARD
```

6.10.8 TREND ANALYSIS

```
01.1 6. WATIG 1.PHTY>02.TYPI
P90.56.*IME>10.ACCT>035323007
                                                  : PHTY DO TYPRUNCHOLD TASK 4 TREND ANAL
1/COHOIE JUH
//L9897F EXEC
                        DU DISPN: PASS 1.UNIT)CT+F1:1.UEFER J.DSN>+A.9A97414.
VUL>SER.I.+F1:A+F1:B+F1:C+F1:D+F1:E+F1:F+F1:G+F1:H+F1:
I+I:J.U+T1:K+F1:L+F1:M+F1:N+F1:O+F1:P+F1:Q+F1:H+F1:S+F1]
//CHG.TUIZ
                                                                                                                   CT12
                        CU DISPL PASS JUNITY (AFF) 2.0EFER J.DSN>C.9997411.
VULJSLRJ (F3,AFF3,BFF3,CFF3,DFF3,EFF3,FFF3,GFF3,HFF3,
1+F3,J+3,K+F3,L+F3,M+F3,N+F3,O+F3,P+F3,O+F3,R+F3,S+F3]
//CHG. TU14
                                                                                                                   CT14/15 1
                                                                                                                    CT14
11
                        CT22/23 1
11CHG. 1U22
                                                                                                                    CTZZ
                                                                                                                      1440 CDS
//CHG.INPUT
                                                                                                                         C98970
00000
UNUOU IDENTIFICATION DIVISION.
UNUO FROURAM-ID. CORST
UNUO AUTHOR. A. J. R. WKEH
UNUO AUTHOR. G. G. NEKH
UNUOU DALE-WRITTEN. D. MAY 72.
                                                                                                                         C98970
                                                                                                                         C98970
                                                                                                                         C98970
C98970
                                                                                                                         C98970
          REMARKS.
ENVIRONMENT DIVISION.
                                                                                                                         C98970
01050
                                                                                                                         C98970
02000
           CONFIGURATION SECTION.
                                                                                                                         C98970
02010
           SOURCE-COMPUTER. IBM-360.
OBJECT-COMPUTER IBM-360.
INPUT-OUTPUT SECTION.
                                                                                                                         C98970
02020
                                                                                                                          C98970
02030
02100
                                                                                                                         C98970
                                                                                                                         C98970
02110
02120
           FILE-CONTROL.
                 SELECT ORS-, ILE

#ESERVE 1 ALTERNATE AREA,

SELECT FREQ-FILE
                                                                   ASSIGN TO UT-S-TU14
                                                                                                                         C98970
                                                                                                                         C98970
02130
                                                                   ASSIGN TO UT-S-TU12
                                                                                                                         C98970
02140
                 SELECT PRED-TILE
PESERVE 1 ALTERNATE AREA.
SELECT MEPO. T-FILE
PESERVE 1 ALTERNATE AREA,
SELECT JEP-AXIS-FILE
PESERVE 1 ALTERNATE AREA.
                                                                                                                         C98970
02150
                                                                   ASSIGN TO UT-S-TUZE
                                                                                                                         C98970
02160
                                                                                                                         C98970
02170
                                                                  ASSIGN TO UT-S-TU13
                                                                                                                         C98970
03210
           DATA DIVISION.
                                                                                                                         C98970
10000
                                                                                                                         C98970
          FILE SECTION.
FU FREG-FILE
10010
                                                                                                                         C98970
11100
                 HECOPOLUG NOTE IS F
HEOCP CONTAINS 90 RECORDS
HECOPOLONIAINS 30
LABLE HECOPOS AND OMITTED
DATA MECONC; AND FREGEREC,
                                                                                                                          C98970
11120
11130
                                                                 CHARACTERS
                                                                                                                         C98970
11150
                                                                                                                          C98970
11170
           01 FREG-HEL SYNC.
                                                                                                                         C98970
```

```
FILLER
                                                                                                PICTURE XX.
 11160
                                                                                                                                                                                       C98970
                                    FREG-IDENT.
 11190
                                                                                                                                                                                       C98970
                                                                                                PICTURE XEAL.
 11200
                                                                                                                                                                                       C96970
                                               FILLER MEDEFINES AIRCRAFT-LEVEL.
04 GROUP-ID PICTURE XC51
04 WUC-SET PICTURE XC31
 11210
                                                                                                                                                                                       C98970
                                                                                               PICTURE XES 1.
PICTURE XES 1.
11220
                                                                                                                                                                                       C98970
                                                                                                                                                                                       C96970
                                              FREN-CUH-INSP
11240
11250
                                                                                                PICTURE X.
                                                                                                                                                                                       C98970
                                     0.5
                                                                                                                                                                                       C98970
                                                                                                PICTURE XX. PICTURE X.
 11260
                                               FRE 1-DATA-TYPE
                                                                                                                                                                                       C98970
                                             FRE 3-ORIGIN
 11270
                                     0.5
                                                                                                                                                                                       COROTE
                                                                                                PICTURE X.
PICTURE 9(6).
PICTURE X.
 11280
                                            FREU-IND-VAR
                                                                                                                                                                                       C98970
11290
11300
                                     FHL-U-OBS
                                                                                                                                                                                       C98970
                                    FILLER
                                                                                                                                                                                       C98970
 11510
                                     FREW-TOTAL-UBS
                                                                                                                                                                                       C98970
                           02 FILLER
085-FILE
11.120
                                                                                                PICTURE Y.
                                                                                                                                                                                       C98970
 12100
                 FD
                                                                                                                                                                                       C98970
12120
                           RECORUTION NOT IS F
                                                                                                                                                                                       C98970
                                                                                                                                                                                       C98970
 12140
                            RECUPD CONTAINS 40
                                                                                                   CHARACTERS
                                                                                                                                                                                       C98970
                           LAPEL RECORDS ARE OMITTED DATA RECORDS ARE OBS-REC. OBS-REC SYRC.
 12150
                                                                                                                                                                                       C98970
 12160
                                                                                                                                                                                       C98970
 12170
                                                                                                                                                                                       C98970
                                  FILLER
OBS-1DE IT
12180
12190
                                                                                                PICTURE XX.
PICTURE X[14].
                           02
02
                                                                                                                                                                                       C98970
                                                                                                                                                                                       C98970
 12200
                                    FILLER
                                                                                                PICTURE X.
                                                                                                                                                                                       C98970
                                     CUS-NUM
                                                                                                PICTURE 99999V9.
 12210
                            02
                                                                                                                                                                                       C98970
 12220
                                     FILLER
                                                                                                PICTURE X.
                                                                                                                                                                                       C98970
                                                                                                PICTURE 99999V9.
PICTURE X.
 12230
                            02
                                     OHS-DENJM
                                                                                                                                                                                       C98970
                                     FILLER
 12240
                            U2
                                                                                                                                                                                       C98970
                                                                                                PICTURE 99999V9.
 12250
                                     085-140
                                                                                                                                                                                       C98970
                           02 FILLER
REPORT -+ ILE
12460
22100
                                                                                                PICTURE XXX.
                                                                                                                                                                                       COROTA
                                                                                                                                                                                       C98970
                           RECUPULNG MIDE IS F
HLOCK CUNTAINS 15 RECORDS
 22120
                                                                                                                                                                                       C98970
22130
22140
                                                                                                                                                                                       C98970
                           RECOPD CONTAINS 130
LAPLE RECOR'S ARE OMITTED
DATA RECORCS ARE PLOT-REG.
                                                                                                   CHARACTERS
                                                                                                                                                                                       C98970
22150
22160
                                                                                                                                                                                      C98970
                          DATA RECORTS ARE PLOT-REC,
PLOT-REC SYNG,
02 FILLER
UEP-AAIS-F'E
RECOPULING MODE IS F
HLOCK CONTAINS 20 RECORDS
RECOPU CONTAINS 80
LAREL HECOPOS ARE OMITTED
FATA ARE ORDS ARE DEP-AAVIS
 22170
                                                                                                                                                                                       C98970
                 01
                                                                                                PICTURE XE 130 1.
221AU
                                                                                                                                                                                       COROTA
 23100
                                                                                                                                                                                       698970
 25120
                                                                                                                                                                                       C98970
 23130
                                                                                                                                                                                       C98970
23140
                                                                                                  CHARACTERS
                                                                                                                                                                                       C98970
23150
                                                                                                                                                                                       C98970
                           DEP-AXIS-REL SYNC PI
23160
                                                                                                                                                                                       C98970
                                                                                               PICTURE X[80].
23170
                         DEP-AXIS-REZ SYNC

KING-STONAGE SECTION:

LINE-CNT

TOTAL-LINE-UNT

TOTAL-LINE-UNT

NO-LINE

COMPUTATIONAL

FICTURE S999 VALUE ZERO.

SYNC

PICTURE S999 VALUE ZERO.

PICTURE S999 VALUE ZERO.

PICTURE S999 VALUE ZERO.

SYNC.

PICTURE S999 VALUE ZERO.

SYNC.

PICTURE S999 VALUE ZERO.

SYNC.

COMPUTATIONAL

PICTURE S999 VALUE ZERO SYNC.

COMPUTATIONAL

PICTURE S999 VALUE ZERO SYNC.

PICTURE S999 VALUE ZERO SYNC.

COMPUTATIONAL

PICTURE S999 VALUE ZERO SYNC.

PICTURE S915 JV914 J SYNC.

PICTURE S91
                                                                                                                                                                                       C98970
30000
                  WOHKING-STORAGE SECTION.
                                                                                                                                                                                       C98970
50U10
                                                                                                                                                                                       C98970
30020
                                                                                                                                                                                      C98970
30040
                                                                                                                                                                                       C98970
                                                                                                                                                                                       C98970
 30060
                                                                                                                                                                                       C98970
                 77
77
10070
                                                                                                                                                                                      C98970
30U80
                                                                                                                                                                                      C98970
 30090
                                                                                                                                                                                       C98970
50100
                                                                                                                                                                                      C98970
30120
                                                                                                                                                                                      C98970
501 30
                                                                                                                                                                                      C98970
30140
                                                                                                                                                                                      C98970
50150
                 77
                                                                                                                                                                                       C98970
                                                                                                                                                                                      C98970
30160
 30170
                                                                                                                                                                                       C98970
                77
30180
                                                                                                                                                                                      C98970
C98970
30190
30240
                                                                                                                                                                                      C98970
C98970
30260
                                                                                                                                                                                      C98970
                                                                                               PICTURE 5999.
PICTURE 59999Y9(4).
PICTURE 59999Y9(4).
PICTURE 5999 VALUE ZERO.
PICTURE 5999 VALUE ZERO.
PICTURE X VALUE SPACE.
PICTURE Y VALUE ZERO.
PICTURE Y CALUE ZERO.
PICTURE XC14] VALUE ZERO.
30270
                                                                                                                                                                                      C98970
                          NO-UF-OUS COMPUTATIONAL
OUS-CNI COMPUTATIONAL
IND-CNI CONFUTATIONAL
OUS-FACTOR COMPUTATIONAL
 30280
                 77
77
77
30290
                                                                                                                                                                                      C98970
 30300
                                                                                                                                                                                      C98970
30310
                                                                                                                                                                                      C96970
30320
                           START-FLAG
                                                                                                                                                                                      C98970
30330
30340
                 77
77
                          NO-PLOTS SYNC
                                                                                                                                                                                      C98970
30350
                                              1909999999999991
                                                                                                                                                                                       C98970
                          MAX-ALLOW-IND COMPUTATIONAL PICTURE SQT71, NUMEPATUR COMPUTATIONAL PICTURE SQT5349E43.
30360
                                                                                                                                                                                      C98970
50570
                                                                                                                                                                                      C98970
30380
                 77
                          DENOMINATOR COMPUTATIONAL
                                                                                               PICTURE S955 Jy964 1.
                                                                                                                                                                                      C98970
                          DEP-TITLE ! THE.
31000
                 01
                                                                                                                                                                                      C98970
31010
                                                                                                PICTURE XC403 VALUE SPACE.
                                                                                                                                                                                      C96970
                                                                                               PICTURE XCBO J.
PICTURE XCIO J VALUE :
31020
31030
                                    DEPLNOENT-TITLE
                                                                                                                                                                                       C98970
                                    FILLER
                                                                                                                                                                                      C98970
C98970
                           02
31100
                 01
                                     INOLPEPO-TITLE SYNC.
                                    IND-BLOCK PICER REDEFINES IND-BLOCK
31110
                           02
                                                                                               PICTURE XEAD .
                                                                                                                                                                                       C98970
51120
                                                                                                                                                                                      C98970
                                                                                               PICTURE X OCCURS BO TIMES.
                                                                                                                                                                                      C98970
```

```
01 FILLER SYNC.
02 FILLER OCCURS 200 TIMES.
03 INU-VALUE PICTURE S9[6].
03 DEF-VALUE PICTURE S9[5]V9[4].
01 PLOT-TILLE SYNC.
31300
                                                                                                                                C98970
31310
31320
                                                                                                                                C98970
                                                                                                                                C98970
                                                                                                                                C98970
C98970
31330
31400
                   02 FILLER
                                                                   PICTURE X[22]
                                                                                                VALUE
                                                                                                                                C98970
                                             CURRENT IDENT
31420
31430
                                 : 1
                                                                                                                                C98970
                                                                   PICTURE X[16] VALUE SPACE.
PICTURE X[85] VALUE SPACE.
PICTURE X[4] VALUE :PAGEI.
PICTURE 29.
                          CUH-10
                                                                                                                                C98970
31440
                        FILLER
                                                                                                                                C98970
                         FILLER
31450
31460
                                                                                                                                C98970
                   02
                                                                                                                                C98970
                          PAGE -NI -RPT
31470
                        FILLER
                                                                   PICTURE X VALUE I#1.
                                                                                                                                C98970
                  DEP-AXIS SYNC.

02 FILLER

02 DEP-MIN-RPT

02 FILLER
                                                                                                                                C98970
31600
            01
                                                                   PICTURE X[14] VALUE SPACE.
PICTURE ZZZZ9.999.
PICTURE X[11] VALUE SPACE.
PICTURE ZZZZ9.999.
PICTURE X[11] VALUE SPACE.
                                                                                                                                C98970
31610
31620
                                                                                                                                C98970
                                                                                                                                C98970
31630
31640
                          CEP-1-KPT
                                                                                                                                C98970
                          FILLER
31650
                   112
                                                                                                                                C98970
                                                                   PICTURE X[1] VALUE SPACE.
PICTURE X[1] VALUE SPACE.
PICTURE X[1] VALUE SPACE.
PICTURE X[1] VALUE SPACE.
                          DEP-2-FPT
                   02
                                                                                                                                C98970
31060
                         FILLER
DEP+3-KPT
31670
                                                                                                                                C98970
                                                                                                                                C98970
31680
                   02
                          FILLER
31690
                          DEP-4-POT
                                                                   PICTURE ZZZZ9.999.
PICTURE X[11] VALUE SPACE.
31700
                   02
                                                                                                                                C98970
                         FILLER
                                                                                                                                C98970
31710
                   02
31/20
                          DEP-MAL-RPT
                                                                 PICTURE ZZZZ9.999.
PICTURE X[7] VALUE
                                                                                                                                C98970
31730
                   U2 FILLER
                                                                                                                                C98970
31740
                   DEP-LINE STHE.
31000
                                                                                                                                C98970
                   02 FILLER
                                                                   PICTURE XC503 VALUE
                                                                                                                                C98970
31610
                                                                                                                                C98970
31020
                                                                    PICTURE XESO VALUE
31030
                   02 FILLER
                                                                                                                                C98970
                                                                   PICTURE XE303 VALUE
31850
                   02 FILLER
                                                                                                                                C98970
                                                                                                                                C98970
31860
31900
                   PLOT-LINE SYNC.
                                                                                                                                C98970
            01
                   02 FILLER
                                                                    PICTURE XEB3 VALUE SPACE.
                                                                                                                                C98970
31910
                                                                   PICTURE X.
PICTURE X.2 VALUE SPACE.
PICTURE ZZZZZZ.
PICTURE XX VALUE SPACE.
31920
                                                                                                                                C98970
31930
31940
                   02
                          FILLER
                                                                                                                                C98970
                  02 WEEK-HPT

U2 FILLER

02 IND-AX'S-SYMB PICTURE X VALUE ...

02 OUTPUT-LINE OCCURS 100 TIMES

PICTURE X.

PICTURE X[10] VALUE
                          WEEK-RFT
                                                                                                                                C98970
31950
                                                                                                                                C98970
31955
                                                                   PICTURE X VALUE 11:.
                                                                                                                                COROTA
                                                                                                                                C98970
31960
31970
                                                                                                                                C98970
                                                                                                                                C98970
31980
31990
                   REPORT-10 SYNC.
33000
            01
                                                                                                                                C98970
                   UZ FILLER
                                                                   PICTURE XESO3 VALUE
33010
                         SPACE.

FILLER

PICTURE XESO 3 VALUE

FILLER

PICTURE XESO 3 VALUE
33020
                                                                                                                                C98970
                                                                                                                                C98970
33030
33040
                   02 FILLER
                                                                                                                                C98970
33050
35300
                                                                                                                                C98970
            01 FILLER SYNC.
02 PEP-AX'S-LIST OCCURS 15 TIMES
                                                                                                                                C98970
35310
                                                                                                                                C98970
                                                                    PICTURE XEADI.
35320
                                                                                                                                C98970
39060
                   CUT-OFF-RE. SYNC.
                                                                                                                                 C98970
                   05 CUTTOF
                                                                   PICTURE 9[5].
PICTURE X[75].
39070
                                                                                                                                C98970
           05 FILLER
PROCEDURE DIVI,ION.
OPEN INPUT OPS-FILE,
FREQ-FILE,
39090
50000
                                                                                                                                 C98970
50010
                                                                                                                                C98970
50020
                   DEP-AXIS-FILE.
50025
                                                                                                                                C98970
                   DEP-AXIS-FILE.

OUTPU

MOVE 200 TC IND-CNT.

PERFORM READ-DEP-AXIS THRU END-RDA.

WRITE PLOT-REC FROM REPORT-ID.
50030
                                                                                                                                C98970
                                                                                        REPORT-FILE.
50040
                                                                                                                                 C98970
50050
                                                                                                                                C98970
           PEPFORM MEAD-DEP-AXIS INNU END-NUM.

WRITE PLOT-REC FROM REPORT-ID.

READ-FPEG-FILE.

READ FHLO-FILE, AT END GO TO FREO-ERROR.

IF FREG-IDENT IS EQUAL TO NINE GO TO FREO-ERROR.

COMPUTE OBS-FACTOR > LFREQ-OBS < 4999] / 5000.

IF FREG-IND-VAR IS EQUAL TO :1: PERFORM SET-WEEKS.

IF FREG-IND-VAR IS EQUAL TO :2: PERFORM SET-FLAMS.

IF FREG-IND-VAR IS EQUAL TO :3! PERFORM SET-LAMS.

IF FREO-IN -VAR IS EQUAL TO :4: PERFORM SET-LANDING.

COMPUTE MAY-ALLOW-IND > 200 • IND-INT.

MOVE IND-INT TO TEMP.

MOVE ZERO :0 SOM.

MOVE ZERO :0 SOM.

PERFORM SET-DEP-IITLE THRU END-SDT.

PERFORM RESET-TABLE THRU END-R-T.

MOVE IND-IT TO IND-VALUE [IND-CNT].

READ-OPS-FILE.
50070
                                                                                                                                 COROTA
50100
                                                                                                                                C98970
50110
50115
                                                                                                                                C98970
 50120
                                                                                                                                C98970
50130
50140
                                                                                                                                C98970
                                                                                                                                C98970
50150
                                                                                                                                C98970
50160
                                                                                                                                C98970
50170
50190
                                                                                                                                 C98970
50200
                                                                                                                                C98970
                                                                                                                                C98970
50210
50220
                                                                                                                                 C98970
50230
                                                                                                                                C98970
50240
                                                                                                                                C98970
50250
                                                                                                                                C98970
            READ-OPS-FILE,
IF STARI-FLAG IS EQUAL TO :1: MOVE SPACE TO START-FLAG.
50300
                                                                                                                                C98970
50305
                                                                                                                                C98970
                   GO TO LOFA.
50306
                                                                                                                                C98970
50310
                                                                                                                                C98970
            POF .
50320
                                                                                                                                C98970
```

```
READ UBS-F.LE, AT END GO TO CF-2.
50330
                                                                                                                                          C98970
                    IF OBS-IDE T IS EQUAL TO NINE 60 TO CF-2.
50335
                                                                                                                                          C98970
50340
                                                                                                                                          C98970
                    IF OHS-CHT IS LESS THAN OBS-FACTOR 60 TO ROF.
50350
50360
            ROFA
                                                                                                                                          C 98970
                    IF 085-10ENT IS EQUAL TO FREG-IDENT.
                                                                                                                                          C98970
50400
                    GO TO CURRENT-DATA.

1F NO-OF-OHS IS EQUAL TO ZERO GO TO FILL-IND-VALUE.

COMPUTE DEF-VALUE (IND-CNT) > SOM / NO-OF-OBS.
                                                                                                                                           C98970
50415
                                                                                                                                          C98970
50416
           FILL-INU-VALUE

1F 1NU-CNT 15 GREATER THAN 49 00 TO SET-PLOT.

ADD 1 TO 1:00-CNT. ADD IND-INT TO TEMP.

MOVE TEMP 0 1NU-VALUE [IND-CNT] 00 TO FILL-INO-VALUE.

SET-PLOT. PLRFCRM PLOT-DATA THRU END-PD.

GO TO READ-FREG-FILE.
50420
                                                                                                                                          C98970
50430
                                                                                                                                          C98970
50450
                                                                                                                                          C98970
50460
                                                                                                                                          C98970
50470
                                                                                                                                          C98970
            PLOT-DATA.
                                                                                                                                          C98970
51000
51004
                    IF FREU-OR! IS LESS THAN CUTTOFF 60 TO END-PO.
                                                                                                                                          C98970
                    MOVE ZERO TO PAGE-NO.
MOVE 99900 TO MIN-DEP-VALUE.
51010
                                                                                                                                          C98970
                                                                                                                                          C98970
51020
                    MOVE ZERO TO CNT.
MOVE ZERO TO MAX-DEP-VALUE.
MOVE :1: TO START-FLAG.
51030
                                                                                                                                           C98970
51040
                                                                                                                                          C98970
51050
                                                                                                                                          C98970
51100
            FIND-MIN-MAX.
                                                                                                                                           C98970
                    J-MIN-MAX.

ADD 1 TO CIT.

MOVE DEP-VALUE CONT) TO TEMP-LOC.

IF TEMP-LOC 15 EQUAL TO MONE, GO TO NEXT-VALUE.

IF TEMP-LOC 15 GREATER THAN MAX-DEP-VALUE.
51110
                                                                                                                                          C98970
51125
                                                                                                                                          C98970
                                                                                                                                          C98970
51130
                    MOVE TEMP-LOC TO MAX-DEP-VALUE.

1F TEMP-LO' 15 LESS THAN MIN-DEP-VALUE,
MOVE TEMP-LOC TO MIN-DEP-VALUE.
51140
51150
                                                                                                                                          C98970
51160
           NEXT-VALUE.

IF CNT IS ESS THAN INU-CNT GO TO FIND-MIN-MAX.

IF MAX-UEP-VALUE IS EQUAL TO ZERO GO TO ENU-PD.

IF MAX-UEP-VALUE IS NOT LESS THAN 10. GO TO HUMD-SCALE.
51210
                                                                                                                                          C98970
                                                                                                                                          C98970
51270
                                                                                                                                           C98970
51282
                                                                                                                                          C98970
51284
                     MOVE ZERO JO MIN-DEP-VALUE.
                    MOVE ZERO ,O MIN-UEP-VALUE.

1F MAX-UEP-VALUE IS NOT LESS THAN 1.

MOVE 10 TO MAX-DEP-VALUE GO TO COMPUTE-INTERVAL.

1F MAX-UEP-VALUE IS NOT LESS THAN 0.1.

MOVE 1 TO MAX-DEP-VALUE. GO TO COMPUTE-INTERVAL.

1F MAX-UEP-VALUE IS NOT LESS THAN 0.01.

MOVE 0.1 TO MAX-DEP-VALUE. GO TO COMPUTE-INTERVAL.

MOVE 0.01 TO MAX-DEP-VALUE.

DITE-INTERVAL.
51286
                                                                                                                                          C98970
                                                                                                                                          C98970
51288
51290
51292
                                                                                                                                           C98970
                                                                                                                                          C98970
51294
51296
                                                                                                                                          C98970
51298
                                                                                                                                          C98970
            COMPUTE-INTERVAL > CMAX-DEP-VALUE - MIN-DEP-VALUE / 100.
51297
                                                                                                                                          C98970
51300
                                                                                                                                          C98970
                    COMPUTE DEP-1 > MIN-DEP-VALUE < (DEP-INTERVAL * 20).

COMPUTE DEP-2 > MIN-DEP-VALUE < (DEP-INTERVAL * 20).

COMPUTE DEP-3 > MIN-DEP-VALUE < (DEP-INTERVAL * 40).

COMPUTE DEP-4 > MIN-DEP-VALUE < (DEP-INTERVAL * 60).

MOVE MIN-DLP-VALUE TO DEP-MIN-RPT.
51320
                                                                                                                                          C98970
51 330
                                                                                                                                          C98970
51340
                                                                                                                                          C98970
51350
                                                                                                                                          C98970
                    MOVE DEP-1
                                                      TO DEP-1-RPT.
TO DEP-2-RPT.
51360
                                                                                                                                           C98970
                    MOVE DEP-2
51370
                                                                                                                                          C98970
                                               TO DEP-3-RPT.
51380
                    MOVE DEP-3
                                                                                                                                          C98970
                    MOVE UEP-4 TO UEP-4-RPT.
MOVE MAX-DEP-VALUE TO DEP-MAX-RPT.
MOVE FREO-JDENT TO CUR-ID.
51390
                                                                                                                                           C98970
51400
                                                                                                                                          C98970
                                                                                                                                          C98970
            ADD 1 TO NO-PLOTS. WRITE-PLOT-TITLE.
51420
                                                                                                                                          098970
                                                                                                                                           C98970
51500
51510
                    ADD 1 TO PIGE-NO. MOVE PAGE-NO-RPT.
                                                                                                                                          C98970
51520
                                                                                                                                          C98970
                    WRITE PLOT-REC FROM PLOT-TITLE. WRITE PLOT-REC FROM DEP-TITLE. WRITE PLOT-REC FROM DEP-AXIS.
51530
51540
                                                                                                                                          C98970
                                                                                                                                          C98970
51550
                    WRITE PLOT-REC FROM DEP-LINE.
MOVE 4 TO LINE-CNT.
ADD 4 TO TOTAL-LINE-CNT.
MOVE ZERO TO INU-KNT.
                                                                                                                                          C98970
                                                                                                                                          C98970
51570
                                                                                                                                           C98970
51580
                                                                                                                                           C98970
51590
51000
            END-WPT.
                    MOVE ZERO 'O TABLE-POS.
51610
51700
                                                                                                                                          C98970
             CLEAR-OUTPUI-B'.OCK.
51710
                    MOVE ZERO TO CHT.
                                                                                                                                          C98970
51T20
             COB.
                   ADD 1 TO C'IT.

MOVE SPACE TO OUTPUT-LINE (CNT).

IF CNT 1S LESS THAN 100 GO TO COB.

ADD 1 TO T'BLE-POS.

MOVE INU-VALUE (TABLE-POS) TO WEEK-RPT.

ADD 1 TO IND-KNT. MOVE IND (IND-KNT) TO IND-OUT.

IF IND-KNT IS GREATER THAN 79, MOVE ZERO TO IND-KNT.

MOVE :: 11 TO IND-AXIS-SYMB.

MOVE DEP-VALUE (TARLE-POS) TO TEMP-LOC.

IF IEMP-LOC 1S NOT EQUAL TO MONE, OO TO FILL-LN,

GO TO WHIT:-LINE.
                                                                                                                                          C98970
51730
                                                                                                                                           C98970
51740
                                                                                                                                          C98970
51750
51760
                                                                                                                                          COROTA
51770
                                                                                                                                          C98970
51790
                                                                                                                                          C98970
51900
                                                                                                                                          C98970
51920
                                                                                                                                           C98970
51930
                                                                                                                                          C98970
51940
                                                                                                                                           C98970
52000
             FILL-LN
                                                                                                                                           C98970
                    IF TEMP-LOC IS EQUAL TO ZERO MOVE INT TO IND-AXIS-SYMB,
52001
                                                                                                                                          C98970
52002
```

```
MOVE ZEHO .O LINE-POS.
52010
                                                                                                                            C98970
            MOVE MIN-D P-VALUE TO TEMP-VALUE. FIND-LINE-POS.
52020
                                                                                                                            C98970
52100
                                                                                                                            C98970
                  D-LINE-POS.
ADD 1 TO LINE-POS.
ADD 1 TO LINE-POS.
ADD DEP-IN/ERVAL TO TEMP-VALUE.
IF TEMP-LC: 1S NOT GREATER THAN TEMP-VALUE GO TO FILL-SPACE.
IF LINE-POS IS LESS THAN 100 GO TO FIND-LINE-POS.
NOTE THRU HERE IS AN ERROR.
DISPLAY: THORE FIND-LINE-POS: TEMP-LOC UPON CONSOLE.
                                                                                                                            C98970
52120
52130
                                                                                                                            C98970
                                                                                                                            C98970
52140
                                                                                                                            C98970
52150
                                                                                                                            C98970
52170
                                                                                                                            C98970
            FILL-SFACE.
 52200
                                                                                                                            C98970
52210
52300
                   MOVE : *: TO OUTPUT-LINE (LINE-POS).
                                                                                                                            C98970
            WRITE-LINE
                                                                                                                            098970
                  IE-LING.

IF LING-CHT IS GPEATER THAN NO-LINE, WRITE PLOT-REC FROM DEP-LINE, ADD I TO TOTAL-LINE-CHT, PERFORM WRITE-PLOT-TITLE, WRITE PLOT HEC FROM PLOT-LINE.

ADD I TO L'NE-CHT, ADD I TO TOTAL-LINE-CHT.

IF IAULE-POS IS LESS THAN IND-CHT, GO TO CLEAR-OUTPUT-BLOCK.

WRITE PLOT HEC FROM DEP-LINE.
52310
                                                                                                                            C98970
C98970
52330
52340
                                                                                                                            C98970
52350
                                                                                                                            C98970
52360
                                                                                                                            C98970
52370
                                                                                                                            C98970
52390
            END-PO. EXII.
                                                                                                                            C98970
52400
                                                                                                                            C98970
                   MOVE ZEHO TO TEMP-LOC.
52410
                                                                                                                            C98970
                                                                                                                            C98970
                   ADD 100 TO TEMP-LOC.

IF TEMP-LOC IS LESS THAN MAX-DEP-VALUE, GO TO HUND-MAX.

MOVE TEMP-LOC TO MAX-DEP-VALUE.
52430
                                                                                                                            C98970
52440
                                                                                                                            C98970
52450
                                                                                                                            C98970
52470
            HUNU-MIN.
                                                                                                                            C98970
                  SUBTRACT 100 FROM TEMP+LOC.

IF TEMP-LGC 15 GREATER THAN MIN-DEP-VALUE, GO TO HUND-MIN.

MOVE TEMP-.OC TO MIN-DEP-VALUE.

GO TO COMPUTE-INTERVAL,
52480
52490
                                                                                                                            C98970
                                                                                                                            C98970
52500
                                                                                                                            C98970
52510
                                                                                                                            C98970
53000
                                                                                                                            C98970
                  IF ORS-IND IS GREATER THAN MAX-ALLOW-IND GO TO READ-OBS-FILE.

IF ORS-IND IS NOT GREATER THAN TEMP GO TO PRES-IND.

IF NO-OF-OHS IS EQUAL TO ZERO GO TO ZERO-OBS.

COMPUTE DE.-PVALUE [IND-CNT] > SOM / NO-OF-OBS.
                                                                                                                            C98970
53005
53010
                                                                                                                            C98970
53020
                                                                                                                            C98970
                                                                                                                            098970
53040
53100
                   60 TO INC- IND.
                                                                                                                            C98970
            ZERO-ONS.
                                                                                                                            C98970
53110
                  MOVE MONE TO DEP-VALUE CIND-CHT).
                                                                                                                            C98970
            INC-IND. MOVE ZERO TO SOM.
53130
                                                                                                                            C98970
                                                                                                                            C98970
                  MOVE ZERO TO NO-OF-ORS.
ADD IND-IN/ TO TEMP.
53160
53170
                                                                                                                            C98970
                                                                                                                            C98970
                   ADD 1 TO IND-CNI.
MOVE TEMP TO IND-VALUE (IND-CNT).
53175
                                                                                                                            C98970
531A0
                                                                                                                            C98970
53190
                   GO TO CURRENT-DATA.
53200
            PRES-IND.
                                                                                                                            C98970
                  IF OBS-UENOM IS EQUAL TO ZERO GO TO READ-OBS-FILE.

MOVE OBS-NUM TO NUMERATOR.

MOVE OBS-DINOM TO DENOMINATOR.

COMPUTE SO! > SOM < CNUMERATOR / DENOMINATOR].

ADD 1 TO NO-OF-OBS.

GO TO READ-OBS-FILE.
53210
                                                                                                                            C98970
53220
                                                                                                                            C98970
53222
                                                                                                                            C98970
                                                                                                                            C98970
53230
                                                                                                                            C98970
53240
                                                                                                                            C98970
53300
53302
                                                                                                                            C98970
           1F NO-OF-C9S IS EQUAL TO ZERO GO TO FILL-IND-VALUE-END.

COMPUTE DEP-VALUE (IND-CNT) > SOM / NO-OF-08S.

FILL-IND-VALUE-END.
                                                                                                                            C98970
53103
                                                                                                                            C98970
53304
                                                                                                                            C98970
                  IF INU-CNT IS GREATER THAN 49 80 TO SET-PLOT-END.

ADD 1 TO IND-CNT, ADD IND-INT TO TEMP.

MOVE TEMP TO IND-VALUE (IND-CNT) 80 TO FILE-IND-VALUE-END.
53305
                                                                                                                            C98970
53306
53307
                                                                                                                            C98970
53308
53310
           SET-PLOT-FNO.
                                                                                                                            C98970
                  PERFORM PLUT-DATA THRU END-PD.
DISPLAY: "OTAL LINE COUNT: TOTAL-LINE-CNT UPON CONSOLE.
DISPLAY: NUMBER OF PLOTS: NO-PLOTS UPON CONSOLE.
                                                                                                                            C98970
53320
                                                                                                                            C98970
                                                                                                                            C98970
53330
           CF-EHROR.
                                                                                                                            C98970
                  CLOSE OUS-FILE
                                                                                                                            C98970
53350
53360
                            FHEO-FILE
                                                                                                                            C98970
53365
                                 DEP-AXIS-FILE,
                                                                                                                            C98970
                                                                                                                            C98970
                            REPORT-FILE.
53370
53380
                  UISPLAY : TOJ 9897 : UPON CONSOLE.
                                                                                                                            C98970
53390
                   GORACK.
                                                                                                                            098970
            FREG-ERHOR.
                                                                                                                            C98970
54010
                  DISPLAY : ERROR READ END OF FREG FILE : UPON CONSOLE. GO TO CF-ETHOR.
                                                                                                                            C98970
54430
            SET-WEEKS.
62000
                                                                                                                            C98970
62010
                  MOVE 1 TO IND-INT.
                                                                                                                            C98970
                   MOVL
                                                                               WEEKS
                                                                                                                            C98970
62020
                                                                   I TO IND-BLOCK.
                                                                                                                            C98970
62030
           SET-FLT-HKS.
                                                                                                                            C98970
62100
                   MOVE 5 TO IND-INT.
                                                                                                                            C98970
62110
62120
                   MOVE
                                                                              FLIGHT HOURS
                                                                                                                            C98970
                                                                   : TO IND-BLOCK.
                                                                                                                            C98970
62130
           SET-SORTILS.
                                                                                                                            C98970
                  MOVE 3 10 IND-INT.
62210
                                                                                                                            C98970
                  MOVE
                                                                               SORTIES
                                                                                                                            C98970
62220
                                                                   : TO IND-BLOCK.
                                                                                                                            C98970
62230 -
```

```
C98970
62300
                SET-LANDING.
                           MOVE 5 10 IND-INT.
62310
                                                                                                                                                                                   C98970
62320
                          MOVE
                                                                                                                  LANDINGS
                                                                                                                                                                                   C98970
                                                                                                : TO IND-BLOCK.
62330
                                                                                                                                                                                   C98970
                SET-DEP-TITLE.

IF FRED-DA'A-TYPE IS EQUAL TO 101: MOVE DEP-AXIS-LIST [1]
64000
                                                                                                                                                                                   C98970
                          IF FREQ-DA'A-TYPE IS EQUAL TO 1011 MOVE DEP-AXIS-LIST [1]
TO DEPENDE'IT-TITLE, GO TO END-SDT.

IF FREQ-DAYA-TYPE IS EQUAL TO :02: MOVE DEP-AXIS-LIST [2]
TO DEPENDE IT-TITLE, GO TO END-SDT.

IF FREQ-DAYA-TYPE IS EQUAL TO :03: MOVE DEP-AXIS-LIST [3]
TO UEPENDENT-TITLE, GO TO END-SDT.

IF FREQ-DATA-TYPE IS EQUAL TO :04: MOVE DEP-AXIS-LIST [4]
TO UEPENDENT-TITLE, GO TO END-SDT.

IF FREQ-DATA-TYPE IS EQUAL TO :05: MOVE DEP-AXIS-LIST [5]
TO UEPENDENT-TITLE, GO TO END-SDT.

IF FREQ-DATA-TYPE IS EQUAL TO :06: MOVE DEP-AXIS-LIST [6]
TO UEPENDENT-TITLE, GO TO END-SDT.
64 410
                                                                                                                                                                                   C98970
64020
                                                                                                                                                                                   C98970
64030
64040
                                                                                                                                                                                   C98970
64450
                                                                                                                                                                                   C98970
64460
                                                                                                                                                                                   C98970
64070
                                                                                                                                                                                   C98970
64480
                                                                                                                                                                                   C98970
64090
                                                                                                                                                                                   C98970
64100
                                                                                                                                                                                   C98970
64110
                          IF FREQ-DATA-TYPE IS EQUAL TO 106: MOVE DEP-AXIS-LIST [6]
TO UPENDENT-TITLE, OD TO END-SOT.
IF FREQ-DATA-TYPE IS EQUAL TO 107: MOVE DEP-AXIS-LIST [7]
TO UEPENDENT-TITLE, GO TO END-SOT.
IF FREQ-DATA-TYPE IS EQUAL TO 108: MOVE DEP-AXIS-LIST [8]
TO DEPENDENT-TITLE, OD TO END-SOT.
IF FREQ-DATA-TYPE IS EQUAL TO 109: MOVE DEP-AXIS-LIST [8]
TO UEPENDENT-TITLE, OD TO END-SOT.
IF FREQ-DATA-TYPE IS EQUAL TO 110: MOVE DEP-AXIS-LIST [10]
TO UEPENDENT-TITLE, GO TO END-SOT.
IF FREQ-DATA-TYPE IS EQUAL TO 118: MOVE DEP-AXIS-LIST [11]
TO DEPENDENT-TITLE, OD TO END-SOT.
IF FREQ-DATA-TYPE IS EQUAL TO 120: MOVE DEP-AXIS-LIST [12]
TO UEPENDENT-TITLE, OD TO END-SOT.
IF FREQ-DATA-TYPE IS EQUAL TO 120: MOVE DEP-AXIS-LIST [12]
TO UEPENDENT-TITLE, OD TO END-SOT.
                                                                                                                                                                                   COROTO
64120
                                                                                                                                                                                   C98970
64130
                                                                                                                                                                                   C98970
                                                                                                                                                                                   C98970
64150
64160
                                                                                                                                                                                   C98970
64170
64180
                                                                                                                                                                                   C98970
64190
                                                                                                                                                                                   C98970
64200
                                                                                                                                                                                   C98970
                                                                                                                                                                                   C98970
64220
                                                                                                                                                                                   C98970
64230
                                                                                                                                                                                   C98970
64240
                                                                                                                                                                                   C98970
                END-SDT. LXIT.
64290
                                                                                                                                                                                   C98970
64300
                          MOVE ZERO TO CHT.
64310
                                                                                                                                                                                   C98970
                                                                                                                                                                                   C98970
                         ADD 1 TO CNT.

MOVE ZENO "O INU-VALUE [CNT].

MOVE MONE TO DEP-VALUE [CNT].

IF CNT IS LESS THAN IND-CNT GO TO RTA.
                                                                                                                                                                                   C98970
64330
                                                                                                                                                                                    C98970
64340
64350
                                                                                                                                                                                   C98970
                                                                                                                                                                                   C98970
64370
64380
                END-R-T. EXIT.
REAU-DEP-AXIS.
                                                                                                                                                                                   C98970
                                                                                                                                                                                   C98970
65000
                          READ DEP-AVIS-FILE INTO CUT-OFF-REC AT END GO TO END-RDA.
                                                                                                                                                                                    C98970
65005
                           MOVE ZERO TO CHT.
                                                                                                                                                                                    C98970
65020
                          ADD 1 TO CHT.
                                                                                                                                                                                   C98970
65030
                          READ DEP-AXIS-FILE INTO DEP-AXIS-LIST [CNT]. AT END GO TO
                                                                                                                                                                                   C98970
65040
                                                                                                                                                                                    C98970
65050
                          GO TO RDA.
                                                                                                                                                                                   C98970
               GO TO MOA.

END-RDA. EXIT.

PLACE COBOL SOURCE BEFORE THIS CARD
TFGIN DU 4,SPACE>(CYL,[1+1]]
UI3 11 0202180
                                                                                                                                                                                   C98970
65070
                                                                                                                                                                              1440 CDS
 //CHG.TFGIN
TFG TU13
                                                                                                   NORM HOURS / PERIODIC NORM HOURS / HOURLY POSTFLIGHT
                                                                                                   AIE / SORTIE
FH / WEEK
                                                                                                    SORTIE / WEEK
                                                                                                   LANDING / WEEK
UNSCHEDULED MA / WEEK
                                                                                                   UNSCHEDULED MA / WEEK UNSCHEDULED MA / FLIGHT HOUR UNSCHEDULED MA / SORTIE UNSCHEDULED MA / LANDING REPAIR ACTION / INSPECTION ABORT MA / SORTIE
 *FND
                     PLACE TFG DATA BEFORE THIS CARD

12 DD DISP>E OLD+KEEP J+VOL>SER>+F1.*UN17>T+F1

14 DD CISP>E OLD+KEEP J+VOL>SER>+F3.*UN17>T+F3

22 DD DISP>E OLD+KEEP J+VOL>SER>+F5.*UN17>T+F5

RIN DD +SPACE>ETRK.CI+IJ
/* PI
//TPR.TU12
 //TPR.TUI4
//TPR.TU22
//TPR.TPRIN
T/P TU12
T/P TU14
                               10100302030
                                1998130P000
                      PLACE MARGEN CONTROL CARDS BEFORE THIS CARD
PLACE MARGEN CONTROL CARDS BEFORE THIS CARD
```

6.11 PROGRAMS FOR WUC REMOVAL ANALYSES

6.11.1 Preprocessor - Task V

```
//19897E JUB
                             01:: G. WANG, I.PRTY>02:TYPF
P9655L:T1ME>04:ACCT>D35323007
                                                              I.PRTY>02.TYPRUN>HOLD
                            P9655L.TIME>0%.ACCT>D35323007

DU DISPX(.PASS).UNITY[A+F3.2:DEFER].DSN>+C.9897416.

VOL>SER>(.F5.A+F3.B+F3.C+F3.D+F3.E+F3.F+F3.G+F3.H+F3.

I4f3.J4F3.K4F3.L4F3.M4F3.N4F3.O4F3.P4F3.G4F3.R4F3.S4F3]

DU DISPX(.PASS).UNITY[T+F3.1:DEFER].DSN>+E.9897431.

VOL>SERP(.F5.A+F5.B+F5.C+F5.D+F5.E+F5.F+F5.G4F5.H+F5.

14f3.J4F5.K4F5.L4F5.H4F5.N4F5.O4F5.P4F5.G4F5.H4F5.S4F5.S4F3.DD

D1SPX(.PASS).UNITY[T+F7.1:DEFER].DSN>+G.9897435.

VUL>SERX[.F7.A+F7.B+F7.C+F7.D+F7.E+F7.F4F7.G4F7.H4F7.

14f7.J4F7.K4F7.L4F7.M4F7.N4F7.O4F7.P4F7.G4F7.H4F7.S4F7.]

DU 4.SPACE>(CYL.[1.1])

COMBINE COMPILE G, WANG.
//C9897A EXEC
//CHG. TU14
                                                                                                                                               C714
                                                                                                                                              CT22
//CHG. TU22
                                                                                                                                               CT22
//CHG. TU24
                                                                                                                                              CT24
                                                                                                                                               CT24
//CHG.INPUT
                                                                                                                                                 1440 COS
                                                                                                                                                     C98970
00000
01040
             DATE-WRITTEN. 20 MAH 72.
             PATE-WIND THE PARTY STUDY MAINTENANCE STUDY
U1U50
                                                                                                                                                     C98970
                                     TENANCE STUDY PROGRAM 5%.

REMOVAL ACTION ANALYSIS.

TOTAL TASK COMPRISES OF NINE PARTS.

1. CALCULATION OF REMOVAL ACTION FREQUENCY AND
REMOVAL INTERVAL FOR EACH BUC (PROGRAM 5A).

2. SORTING OF BUC TO GROUP AIRCRAT SUB-SETS AND
BUC.

FURGUIENCY FOR FIRST AIRCRAFT
01060
                                                                                                                                                     C98970
                                                                                                                                                     C98970
01070
01080
                                                                                                                                                      C98970
01090
01100
                                                                                                                                                     C98970
                                                                                                                                                     C98970
                                                                                                                                                      C98970
U1120
                                                                                                                                                     C98970
01130
                                                                                                                                                     C98970
                                              SUB-SET.
4. SONTING OF FREGULNCY FOR SECOND AIRCRAFT
01140
                                                                                                                                                     C98970
                                                                                                                                                     C98970
01150
                                              SUB-SET,

S. PREPARATION OF WIC LISTING FOR EACH AIRCRAFT
SUB-SET I PROGRAM 58].
01160
                                                                                                                                                      498970
01170
                                                                                                                                                     COMOTO
01180
                                                                                                                                                     C98970
                                             SUB-SET I PROGRAM 58 J.

6. PREPARATION OF FREQUENCY OF REMOVAL FOR FIRST AIRCRAFT SUB-SET (PROGRAM 5E J.

7. PREPARATION OF FREQUENCY OF HEMOVAL FOR SECOND AIRCRAFT SUB-SET (PROGRAM 5C J.

8. SORTING OF HEMOVAL INTERVALS TO GROUP AIRCRAFT SUB-SETS, DATA-TYPES AND BUC.

9. PREPARATION OF DISTRIBUTIONS FOR REMOVAL INTERVALS (PROGRAM 5D J.
01190
                                                                                                                                                     C98970
                                                                                                                                                     C98970
01200
01210
                                                                                                                                                      C98970
01220
                                                                                                                                                     C98970
01230
                                                                                                                                                     C98970
01240
                                                                                                                                                     C98970
01250
                                                                                                                                                     C98970
                                                                                                                                                      C98970
01260
02400
             ENVIRONMENT DIVISION.
                                                                                                                                                      C98970
             CONFIGURATION SECTION.
SOUNCE-COMPUTER, 18M-360.
OBJECT-COMPUTER, 18M-360.
INPUT-OUTPUT SECTION.
FILL-CONTROL.
SELLCI IN-FILE-U-B
                                                                                                                                                     C98970
U2010
02020
                                                                                                                                                      C98970
02030
                                                                                                                                                      C98970
                                                                                                                                                      C98970
02100
                                                                                                                                                     C98970
02110
                                                                                  ASSIGN TO UT-5-TU14
02120
                      RESERVE 1 ALTERNATE AREA.
SELLCI IN-FILE-15C
RESERVE 1 ALTERNATE AREA.
                                                                                                                                                      C98970
02140
                                                                                  ASSIGN TO DA-5-DTU1
                                                                                                                                                     C98970
                                                                                                                                                     C98970
                      SELECT WSG-FILE

RESERVE 1 ALTERNATE AREA.
SELECT OUT-FILE-1
02160
                                                                                  ASSIGN TO DA-S-DT02
                                                                                                                                                     C98970
                                                                                                                                                     C98970
02170
                                                                                                                                                      C98970
                                                                                  ASSIGN TO U7-5-TU22
                      HESCHVE 1 ALTERNATE AREA. SELECT OUT-FILE-2
02190
                                                                                                                                                     C98970
02200
                                                                                  ASSIGN 70 UT-5-TU24
                                                                                                                                                     C98970
                                                                                                                                                     C98970
C98970
U221U
                             RESERVE 1 ALTERNATE AREA.
             DAIA DIVISION.
FILE SECTION.
FU IN-FILE-D-B
10000
10010
                                                                                                                                                     C98970
10100
                                                                                                                                                     C98970
                     HECORDING MODE IS F
BLOCK CONTAINS 40 RECOMDS
PECURD CONTAINS 70
10120
                                                                                                                                                     C98970
                                                                                                                                                     C98970
10140
                                                                                CHARACTERS
                                                                                                                                                     C98970
                      LAHLL RECORDS ARE OMITTED DATA RECORDS ARE IN-REC-D-8.
10150
                                                                                                                                                     C98970
10160
                                                                                                                                                     C98970
                     IN-MEC-U-8 SYNC.
10200
             01
                                                                                                                                                     C98970
10210
                      02 FILLER
                                                                              PICTURE XC701.
                                                                                                                                                     C98970
10220
                                                                                                                                                     C98970
             FD
11300
                     IN-FILE-ISC
                                                                                                                                                     C98970
                     RECORDING MODE 15 F
BLOCK COLTAINS 20 RECORDS
11520
                                                                                                                                                     C98970
11330
                                                                                                                                                     C98970
C98970
11340
                      HECORD CONTAINS NO
                                                                                CHARACTERS
                    ACCORD CUNTAINS 80
LABEL RECORDS ARE STANDARD
DATA RECCADS ARE IN-REC-ISC.
IN-REC-150 SYNC.
02 FILLER
0UT-FILE-1
11350
                                                                                                                                                     C98970
11360
                                                                                                                                                     C98970
                                                                                                                                                     C98970
11400
             10
11410
                                                                              PICTURE XEBO 3.
                                                                                                                                                     C98970
             FD
12100
                                                                                                                                                     C98970
```

```
RECORDING MODE IS F
BLOCK CONTAINS 90 RECORDS
RECORD CONTAINS 20
LABEL HECORDS ARE OMITTED
DATA RECCADS ARE OUT-REC-1.
OUT-REC-1 SYNG.
                                                                                                                                                                                                                     C98970
  12130
                                                                                                                                                                                                                     C98970
  12140
                                                                                                                   CHARACTERS
                                                                                                                                                                                                                      C98970
  12150
                                                                                                                                                                                                                     COAGTO
  12160
                                                                                                                                                                                                                     C98970
  12200
                    01
                                                                                                                                                                                                                     C98970
                                 02 FILLER
                                                                                                                 PICTURE XE 201.
                                                                                                                                                                                                                     C98970
  12210
  13300
                                 MSG-FILL
                                RECORUING MODE IS F
BLOCK CUNTAINS 20 RECORDS
  13320
                                                                                                                                                                                                                     C98970
  13330
                                                                                                                                                                                                                     C98970
                               BLOCK CONTAINS 20 RECORDS
RECORD CONTAINS 80
LARL RECORDS ARE STANDARD
DATA HECORDS ARE MSG-REC,
MSG-REC SYNC.
02 FILLE?
OUT-FILE-2
RECORDING MODE IS F
 13340
                                                                                                                   CHARACTERS
                                                                                                                                                                                                                     C98970
                                                                                                                                                                                                                     C98970
  13360
                                                                                                                                                                                                                       C98970
                    01
  13400
                                                                                                                                                                                                                     C98970
  13410
                                                                                                                 PICTURE XE803.
 14100
                     FO
                                                                                                                                                                                                                     C98970
                                                                                                                                                                                                                     C98970
                                BLOCK CUNTAINS 90 RECORDS
RECORU CENTAINS 20
  14130
                                                                                                                                                                                                                     C98970
  14140
                                                                                                                   CHARACTERS
                                                                                                                                                                                                                     C98970
                                LARLL RECORDS ARE OMITTED DATA RECORDS ARE OUT-REC-2. OUT-REC-2 SYNC.
  14150
  14160
                                                                                                                                                                                                                     C98970
  14200
                                                                                                                                                                                                                     C98970
  14210
                                         FILLEY
                                                                                                                PICTURE XE203.
                                                                                                                                                                                                                      C98970
                     WORKING-STONAGE SECTION.
  30000
                                                                                                                                                                                                                     C98970
                               WEEK-ILMP
CUR-15C 'YNC
CUR-SLR-NO SYNC
KNT SYNC COMPUTATIONAL
NO-WUL S'NC COMPUTATIONAL
NO-WEC-1 SYNC
NO-REC-2 SYNC
CNT SYNC COMPUTATIONAL
TWO SYNC
NOEST SYNC
TOMEST SYNC
NO-STRIC
TWO SYNC
TOMEST SY
  30010
                                WEEK-ILMP
                                                                                                                 PICTURE 5999.
                                                                                                                                                                                                                     C98970
 30020
30030
                                                                                                                                                                                                                     COROTO
                                                                                                                                                                                                                     C98970
  30050
                                                                                                                                                                                                                     C98970
  30100
                                                                                                                                                                                                                     C98970
   30120
                                                                                                                                                                                                                     C98970
  30130
30140
                     17
                                                                                                                                                                                                                     C98970
                                                                                                                                                                                                                     C98970
  30170
                                                                                                                                                                                                                     C98970
  30360
                                                                                                                                                                                                                     C98970
  30390
                                                                                                                                                                                                                     C98970
  30400
                     77
                                                                                                                                                                                                                     COROTA
                                                                                                                                                                                                                     C98970
 30420
                                                                                                                                                                                                                    C98970
                               MIN-ISC-MEEK SYNC COMPUTATIONAL
START-WLEK COMPUTATIONAL
NO-ISC S'NC.
02 FILLER
NO-ISC-AC COMPUTATIONAL
PICTURE XX.
PICTURE XX.
PICTURE XC75].
 30440
31010
                     01
                                                                                                                                                                                                                     C98970
                             NO-ISC-AC
02 FILLER
1SC-A-C SYNC.
02 FILLER
02 ISC-IA'
02
  31020
                                                                                                                                                                                                                     C98970
  31030
                                                                                                                                                                                                                    COASTO
  31040
                                                                                                                                                                                                                    C98970
                                                                                                                                                                                                                     C98970
C98970
  31050
  31060
                                                                                                                PICTURE XX
                                                                                                               PICTURE XEBJ.
                                02 ISC-IN
02 FILLER
  31070
 31080
                                                                                                                                                                                                                    C98970
                               02 ISC-WX
02 FILLER
FILLER SYNC.
 31090
                                                                                                                PICTURE 999
                                                                                                                                                                                                                    C98970
                                                                                                                PICTURE XE 653.
 31100
                                                                                                                                                                                                                    C98970
                    01
 31200
                                                                                                                                                                                                                    C98970
                                02 - FILLER-OCCURS 36 TIMES,
03 TSC-AC-TN PICTURE XE8),
03 TSC-AC-WK COMPUTATIONAL PICTURE 5999.
 31205
31210
                                                                                                                                                                                                                     C98970
                                                                                                                                                                                                                     C98970
                    01
 31300
                               DATA-HANK-INPUT SYNC.
                                                                                                                                                                                                                     COROZO
                               02 FILLER
02 SERIAL-NO
                                                                                                                PICTURE XC53.
 31310
                                                                                                                                                                                                                    C98970
                                                                                                                PICTURE XC6J.
PICTURE 999.
PICTURE XC5J.
 31320
                                                                                                                                                                                                                    C98970
 31330
                                           WEEK
                                                                                                                                                                                                                    C98970
                                02
                                          WUC
FILLER
UN1 (S
FILLER
 31340
31380
                                                                                                                PICTURE XC223.
PICTURE 5999.
PICTURE XX.
                                02
                                                                                                                                                                                                                    C98970
 31400
                                02
 31410
                                02
                                                                                                                                                                                                                    C96970
 31420
                                           1UENT
                                                                                                                PICTURE 9.
                                02
                                                                                                                                                                                                                    C98970
                               02 FILLER
02 FILLER
02 FILLER
047-DATA SYNC.
02 CUR-WUC
02 FILLER
                                                                                                               PICTURE X[4].
PICTURE S9[6].
 31430
                                                                                                                                                                                                                    C98970
 31440
                                                                                                                                                                                                                    C98970
 31450
                                                                                                                PICTURE XE 11 J.
 31500
                    01
                                                                                                                                                                                                                    C96970
                                02
02
02
                                                                                                               PICTURE X53.
PICTURE X543 VALUE SPACE.
PICTURE S9163.
PICTURE X VALUE SPACE.
 31530
                                                                                                                                                                                                                    C98970
                                          OBS
FILLER
ISCHRONAL
 31540
                                                                                                                                                                                                                    C98970
                                                                                                                                                                                                                    C98970
 31550
                                02
                                                                                                               PICTURE X.
PICTURE X VALUE SPACE.
PICTURE X.
PICTURE X.
VALUE 1#1.
 31560
                                02
                                          FILLER
DATA-TYPE
FILLER
 31570
                                                                                                                                                                                                                    C98970
                                                                                                                                                                                                                    C98970
C98970
31500
 31590
                              FILLER SYNC.

03 WUC-DATA.

04 CURWUC

04 FREQ-15C

04 FREQ-11
31690
31705
                    01
                                                                                                                                                                                                                    C98970
C98970
                                                                                                               PICTURE XXXXX.
PICTURE 59653 VALUE ZERO.
PICTURE 59653 VALUE ZERO.
PICTURE X653 VALUE 1 8
PICTURE S999 COMPUTATIONAL.
PICTURE 59632 COMPUTATIONAL.
31710
31720
                                                                                                                                                                                                                     C98970
                                                                                                                                                                                                                    C98970
31730
31735
                                                                                                                                                                                                                    C98970
                              04 FILLER
LAST-WELK SYNC
LAST-FLI-HRS SYNC
                                                                                                                                                                                                                    C98970
                                                                                                                                                                                                                    C98970
 31740
 31750
                    01
                               NINE SYNC.
02 FILLER
                                                                                                                                                                                                                    C98970
                    01
 31800
                                                                                                                                                                                                                    C98970
 31810
                                                                                                                PICTURE XE 203 VALUE
 31820
                                                                                   19999999999999999999999999999999999
                                                                                                                                                                                                                     C98970
```

```
PROCEDURE DIVISION.
                                                                                                                                                            C98970
50000
 50010
               OPEN-FILES.

OPEN INPUT IN-FILE-D-B, IN-FILE-ISC.
                                                                                                                                                             C98970
 50020
                                                                                                                                                             C98970
                       OPEN OUTPUT MSG-FILE.

OPEN OUTPUT OUT-FILE-1, OUT-FILE-2,
PERFORM FEAD-ISC-A-C THRU END-RIAC.
                                                                                                                                                            C98970
 50030
 50040
 50050
                                                                                                                                                             C98970
               READ-INITIAL.
READ IN-FILE-D-B INTO DATA-BANK-INPUT.
                                                                                                                                                            C98970
 50060
 50070
                                                                                                                                                            C98970
                        AT END GO TO CLOSE-FILES.

IF IDENT IS NOT EQUAL TO 3 GO TO READ-INITIAL.

IF BEEK IS LESS THAN START-WEEK GO TO READ-INITIAL.
 50080
 50100
                                                                                                                                                             C98970
50104
                                                                                                                                                            C98970
                        IF UNITS IS LESS THAN I GO TO READ-INITIAL.
 50105
50106
               NEW-WUC.
MOVE WUC TO CUR-WUC.
                                                                                                                                                            C98970
                                                                                                                                                            C98970
C98970
C98970
 50108
                        ADD 1 TO NO-WUC.
 50110
               NEW-BLOCK.
                      BLOCK.
PERFORM CHECK-ISCHRONAL THRU END-G.
PERFORM CHECK-ISCHRONAL TO CUR-ISC.
MOVE SEHIAL-NO TO CUR-SER-NO.
MOVE WELK TO LAST-WEEK.
MOVE FLI-HRS TO LAST-FLIT-HRS.
IF ISCHHONAL IS EQUAL TO ONE ADD UNITS TO FREE-ISC.
ELSE ADD UNITS TO FREE-NI.
 50120
50130
50140
                                                                                                                                                            C98970
 50160
                                                                                                                                                            C98970
50170
                                                                                                                                                            COASTO
                                                                                                                                                            C98970
 50180
 50190
                                                                                                                                                            C98970
 50200
               READ-DATA.
                        READ IN-FILE-D-H INTO DATA-BANK-INPUT.
 50210
                      READ IN-FILE-D-B INTO DATA-BANK-INPUT.
AT END GO TO CLOSE-FILES.

IF ICENT IS NOT EQUAL TO 3 GO TO READ-DATA.
IF UNITS IS LESS THAN 1 GO TO READ-DATA.
IF WEEK IS LESS THAN START-WEEK GO TO READ-DATA.
IF WE IS NOT EQUAL TO CUR-WE GO TO WUC-INFO.
IF SERIAL-NO IS NOT EQUAL TO CUR-SER-NO GO TO NEW-BLOCK.
PERFORM CHECK-ISCHRONAL THRU END-CI.
IF ISCHRONAL IS NOT EQUAL TO CUR-ISC, GO TO NEW-BLOCK.
IF ISCHRONAL IS EQUAL TO ONE ADD UNITS TO FREG-ISC,
ELSE ADD UNITS TO FREG-NI.
                                                                                                                                                            C98970
 50220
                                                                                                                                                            C98970
C98970
 50230
 50235
 50236
                                                                                                                                                             C98970
 50237
                                                                                                                                                             CORSTO
 50240
                                                                                                                                                             C98970
 50250
                                                                                                                                                             C 08970
 50260
                                                                                                                                                             C98970
 50270
                                                                                                                                                             C98970
  50275
                                                                                                                                                             C98970
               PERFORM WRITE-DATA.

MOVE WEEK TO LAST-WEEK.

MOVE FLI-HRS TO LAST-FLT-HRS.

GO TO MEAD-DATA.

WUC-INFU.
 50280
50290
                                                                                                                                                             C98970
                                                                                                                                                             C08970
 50300
                                                                                                                                                             C98970
 50310
                                                                                                                                                            C98970
 50810
                       MOVE CUM-WUC TO CURWUC.

MOVE CUM-WUC TO CURWUC.

MOTE OUT-REC-! FROM WUC-DATA.

ADD I TU NO-REC-!.

MOVE ZERO TO FREG-NI.

MOVE ZERO TO FREG-NI.
 50820
                                                                                                                                                             C98970
 50830
                                                                                                                                                             C98970
                                                                                                                                                             C98970
 50840
 50910
                                                                                                                                                             C98970
 50920
                                                                                                                                                            C98970
 50930
                        GO TO NEW-WUC.
                                                                                                                                                             C98970
               CLOSE-FILES.
51800
                                                                                                                                                            C98970
                       MOVE CUR-WUC TO CURWUC. WRITE OUT-REC-1 FROM WUC-DATA.
STHON
51805
                                                                                                                                                            C98970
                       ADD 1 TO NO-REC-1.

COMPUTE KNT > NO-REC-1 - NO-REC-1 / 90 + 90.

IF KNT IS ZERO GO TO CF-2.

PERFORM NINE-FILL-I THRU N-F-1.
51806
                                                                                                                                                            C98970
                                                                                                                                                            C98970
C98970
51810
51830
                                                                                                                                                             C98970
 51840
                                                                                                                                                            C98970
                       COMPUTE KNT > NO-REC-2 - NO-REC-2 / 90 * 90.

IF KNT 15 ZERO GO TO CF-3.

PERFORM NINE-FILL-2 THRU N-F-2.
51850
51860
                                                                                                                                                            C98970
51870
                                                                                                                                                            C98970
51900
                                                                                                                                                            C98970
                      DISPLAY: NUMBER RECORDS-I: NO-REC-1 UPON CONSOLE.
DISPLAY: NUMBER RECORDS-2: NO-REC-2 UPON CONSOLE.
DISPLAY: NUMBER WUC 3: NO-WUC UPON CONSOLE.
DISPLAY: NUMBER WUC 3: NO-WUC UPON CONSOLE.
CLOSE IN-FILE-0-B, MSG-FILE, OUT-FILE-1,
OUT-FILE-2 WITH LOCK.
51910
                                                                                                                                                            C98970
                                                                                                                                                            C98970
51930
51940
51950
                                                                                                                                                            C98970
51960
                                                                                                                                                            C98970
51490
                       GOBACK.
                                                                                                                                                            C98970
52000
              WRITE-DATA.
                                                                                                                                                            C98970
                      COMPUTE OBS > WEEK - LAST-WEEK.

MOVE UNL TO DATA-TYPE.

WRITE OUT-REC-2 FROM OUT-DATA.

COMPUTE OBS > FLT-MRS - LAST-FLT-MRS.

MOVE TWO TO DATA-TYPE.

WRITE OUT-REC-2 FROM OUT-DATA.
52040
                                                                                                                                                            C98970
52050
                                                                                                                                                            C98970
52060
                                                                                                                                                            C98970
52070
52080
                                                                                                                                                            C98970
52090
                                                                                                                                                            C98970
              ADD 2 TO NO-REC-2.

READ-ISC-A-C.

READ IN-FILE-ISC INTO NO-ISC AT END GO TO END-RIAC.

MOVE ZERO TO KNT.
52095
                                                                                                                                                            C98970
70000
                                                                                                                                                            C98970
70010
                                                                                                                                                            C98970
 70020
                                                                                                                                                            C98970
             MOVE SELECTION

ADD I TO KNT.

REAU IN-FILE-ISC INTO ISC-A-C AT END GO TO END-RIAC.

MOVE ISC-WK TO ISC-AC-WK ENT].

MOVE ISC-WK TO ISC-AC-WK ENT].

**E **SC-BK** IS LESS THAN MIN-ISC-WEEK MOVE ISC-WK
70030
                                                                                                                                                            C98970
                                                                                                                                                           C98970
76040
70050
70060
                                                                                                                                                            C98970
70070
                                                                                                                                                            COA970
70075
```

```
TO MIN-ISC-WEEK.

IF KNT 1; LESS THAN NO-ISC-AC GO TO RIAC.
CLOSE IN-FILE-ISC WITH LOCK.
                                                                                                                                            C98970
 70076
                                                                                                                                            C98970
 70080
 70085
             END-RIAC. EXIT
                                                                                                                                            C98970
 70090
             END-RIAG. CALL.
CHECK-ISCHRCHAL.
IF SERIAL-NO IS NOT EQUAL TO PREV-TESTED-SN GO TO CHECK-1-2.
IF ISC-FLAG IS EQUAL TO TWO GO TO END-CI.
IF ISCHRONAL IS EQUAL TO ONE AND WEEK IS NOT LESS THAN
MIN-ISC-WEEK, THEN GO TO END-CI.
                                                                                                                                            C98970
 70200
70210
                                                                                                                                            C98970
                                                                                                                                            C98970
 70220
                                                                                                                                            C98970
 70230
 70232
                                                                                                                                            C98970
 70240
             CHECK-I-2
                     MOVE TWO TO ISCHRONAL.

IF WEEK IS LESS THAN MIN-ISC-WEEK 60 TO END-CI.

MOVE_ZERO TO CNI.
                                                                                                                                            C98970
 70250
                                                                                                                                            C98970
 70260
70270
                                                                                                                                            C98970
             CHECK-I-I.
 70280
                                                                                                                                            C98970
                                                                                                                                            C98970
 70290
                     AUU I TO CHT.

MOVE ISC-AC-TN [CNT] TO ISC-TEMP.

IF SERIA'-NO IS LESS THAN ISC-TEMP GO TO CHECK-1-4.

IF SERIAL-NO IS EQUAL TO 1SC-TEMP GO TO CHECK-1-1A.

IF CHT IS LESS THAN NO-ISC-AC GO TO CHECK-I-1.
                                                                                                                                            C98970
 70310
70320
                                                                                                                                            C08970
                                                                                                                                            C98970
 70330
70340
                                                                                                                                            C98970
C98970
             CHECK-I-4.
                     MOVE TWO TO ISC-FLAG.
 70350
                     GO TO CHECK-1-3.
                                                                                                                                             C98970
 70360
             CHECK-I-IA.

MOVE ISC-AC-WK CONT TO WEEK-TEMP.

IF WELK-TEMP IS EQUAL TO WEEK OR WEEK IS GREATER THAN

WEEK-TEMP MOVE ONE TO ISCHRONAL.

MOVE ONE TO ISC-FLAG.
 70370
                                                                                                                                            C98970
 70380
                                                                                                                                            C98970
 70390
 70400
70410
                                                                                                                                            C98970
 70430
             CHECK-I-3.
MOVE SEHIAL-NO TO PREV-TESTED-SN.
 70440
             END-CI. EXII.
 70450
                                                                                                                                            C98970
                                                                                                                                            C98970
 70510
             WINE-FILL-2.

WRITE OUT-REC-2 FROM NINE.

ADD I TO KNT.

IF KNT IS LESS THAN 90 GO TO NINE-FILL-2.

NINE-FILL-I.

NINE-FILL-I.

PROM NINE-FILL-I.
                                                                                                                                             C98970
 70520
                                                                                                                                            C98970
 70530
 70540
                                                                                                                                            C98970
 70600
                     WRITE OUT-REC-I FROM NINE. ADD I TO KNT.
                                                                                                                                            C98970
C98970
 70610
70020 ADD I TC KNT.
70030 IF KNT 15 LESS THAN 90 90 TO N1NE-FILL-1.
70040 N-F-I. EXIT.
70 PLACE COBLL SOURCE BEFORE
7/CHG.TFGIN DU +,5PACE>[CYL,[1,1]]
TFG D101 I1 0202080
                                                                                                                                             C98970
                                                                                                                                            C98970
                                                                                                                                         1440 CDS
    57000236 331
57000237 331
57000243 324
57000244 331
    57002545 331
    58000776 324
58000901 331
    59000002 331
     59000003 331
    59000005 331
    59000006 331
     59000010 331
    59000012 331
59000015 331
    59000018 33I
59000019 33I
    59000026 33I
59000030 331
59000054 324
59000057 324
    59000058 324
59000059 324
    59000104 331
    59000105 331
    59000108 324
    59000110 524
59000119 324
    59000141
                      324
    59000143 324
59000144 324
    59000145 324
   59000147 324
59000151 324
59000152 324
.END
                PLACE TEG DATA BEFORE THIS CARD
                           TFG DATA BEFORE THIS CARD

DISP>COLD.KEEPJ.VOL>SER>+F3.UNIT>T+F3

DD DISP>COLD.KEEPJ.VOL>SER>+F7.UNIT>T+F7

DD DISP>COLD.KEEPJ.VOL>SER>+F7.UNIT>T+F7

DD -SPACE>CTRK,[1:1]
//TPR.TU14
                                                                                                                                        714
788
784
//TPR.TU22
//TPR.TU24
//TPR.TPR1N
T/P DT01
T/P TUI4
T/P TU22
                       1010000Z000
10100 0Z070
                        10100202020
                10100202020
PLACE T/P CONTROL CARDS BEFORE THIS CARD
        TU24
```

6.11.2 SORT WUC FREQUENCY

6.11.3 WRITE WUC FREQUENCY

```
//C9897P EXEC P9655L.T1ME>02.ACCT>035323007
                         OU 015F>(.PASS),UN17)(T+F1.1.DEFER].DSN>+A.9897432.
VOL>SER>(+F1.A+F1.B+F1.C+F1.D+F1.E+F1.F+F1.0+F1.H+F1.
1+F1.J+F1.K+F1.L+F1.M+F1.N+F1.O+F1.P+F1.Q+F1.R+F1.S+F1]
                                                                                                                       CT12
CT12
//CHG. TU12
11
                         DU DSN>+P.9897433.SPACE>(CYL-1009.001)]
DD DSN>+P.9897435.SPACE>(CYL-1009.001)]
//CHG. TU24
                                                                                                                         D24-0UT
                                                                                                                          D23-0UT
//CHG. TU25
                                 +, SPACE>LCYL, [1,1]
//CHG. INPUT
                                                                                                                          1440 CDS
           COMUTNE COMP
DATE-WRITTE'S 1 APR 72.
                                                                                      G. WANG.
                                                                                                                             C98970
00000
                                                                                                                             C98970
01040
           REMARKS.

MAINTENANCE STUDY PROGRAM 58.

PREPARES LISTING OF WUC -V- REMOVAL ACTION FREQUENCY.

INPUT SORT SEQUENCE
                                                                                                                             C98970
01050
01060
01070
                                                                                                                             C98970
OLUBU
                                                                                                                             C98970
           ENVIRONMENT DIVISION.
                                                                                                                             C98970
02000
           CONFIGURATION SECTION.
SOURCE-COMPUTER. 18M-360.
OBJECT-COMPUTER. 18M-360.
                                                                                                                             C98970
02010
                                                                                                                             C98970
02020
                                                                                                                              C98970
02030
           INPUT-OUTPUT SECTION. FILE-CONTROL.
                                                                                                                              C98970
                                                                                                                             C98970
02110
                  SELECT IN-FILE
                                                                     ASSIGN TO UT-S-TU12
                                                                                                                              C98970
                  RESERVE 1 ALTERNATE AREA.
SELECT CUT-FILE-15
                                                                                                                             C98970
02130
                                                                     ASSIGN TO UT-S-TU25
02140
                  PESERVE 1 ALTERNATE AREA.
SELLCT CUT-FILE-N1
RESERVE 1 ALTERNATE AREA.
                                                                                                                              C98970
02150
                                                                                                                              C98970
                                                                     ASSIGN TO UT-S-TU24
02160
02170
                                                                                                                              C98970
                                                                                                                              C98970
10000
           DATA DIVISION.
           FILE SECTION.
10010
10100
                                                                                                                              C98970
                  RECORDING MODE IS F
BLOCK CONTAINS 90 RECORDS
RECOPD CONTAINS 20
LAPLE MICORDS ARE OMITTED
DATA RECORDS ARE 1N-REC.
                                                                                                                              C98970
10120
                                                                                                                              C98970
10130
                                                                                                                              C98970
                                                                    CHARACTERS
                                                                                                                              C98970
10150
                                                                                                                              COROTO
10160
                                                                                                                              C98970
10200
           01
                  IN-HEC
                                    SYNC .
                  IN-HEC

02 WUC

02 FHLU-1SC

02 FHEU-N1

02 FILLEN
                                                                  PICTURE XESJ.
                                                                                                                              C98970
                                                                  PICTURE S9(5).
PICTURE S9(5).
PICTURE X(5).
                                                                                                                              C98970
10230
                                                                                                                              C98970
10240
                  OUT-FILL-1S
RECOPUTION MODE IS F
BLOCK CUNTAINS 40 RECORDS
RECORU JOHTAINS 70
                                                                                                                              C98970
11300
           FU
11320
                                                                                                                              C98970
                                                                                                                              C98970
11330
                                                                    CHARACTERS
                                                                                                                              C98970
11340
                  LARLL H.CORDS ANE OMITTED
DATA HE ONDS ARE OUT-REC-IS.
OUT-CATA-IS SYNC.
11350
                                                                                                                              C98970
                                                                                                                              C98970
11360
                                                                                                                              C98970
11400
           01
                 OUT-FATA-IS SYNC.

02 FILLER

0UT-FIL.-NI

HECORUI'NG MODE IS F

BLOCK CUNTAINS 40 RECORDS

RECORU LONTAINS 70

LABEL RICORUS ARE ONITTED

DATA HECORDS ARE OUT-REC-NI.

OUT-REC-NI SYNC.
                                                                  PICTURE XE 701.
                                                                                                                              C98970
                                                                                                                              C98970
           FD
13300
                                                                                                                              C98970
13320
                                                                                                                              C98970
13330
                                                                   CHARACTERS
                                                                                                                              C98970
13340
                                                                                                                              C98970
                                                                                                                              C98970
13360
                                                                                                                              C98970
13400
           01
           02 FILLER
WORKING-STOWAGE SECTION.
                                                                  PICTURE XC701.
                                                                                                                              C98970
30000
           TOWNERS SECTION:
77 PAGE-NI SYNC COMPUTATIONAL
77 PAGE-15 SYNC COMPUTATIONAL
77 LINE-N1 SYNC COMPUTATIONAL
77 LINE-15 SYNC COMPUTATIONAL
                                                                  PICTURE S999 VALUE ZERO.
PICTURE S999 VALUE ZERO.
PICTURE S999 VALUE ZERO.
                                                                                                                              C98970
30050
                                                                                                                              C98970
30060
                                                                                                                              C98970
30130
                                                                  PICTURE S999 VALUE ZERO.
                                                                                                                              C98970
```

```
NO-LINE-PAGE SYNC COMPUTATIONAL PICTURE 5999 VALUE 475.
30150
                                                                                                                                                                                           C98970
                            OUT-DATA SYNC.
31500
                                                                                                                                                                                            C98970
                                                                                                  PICTURE X VALUE 1/:.
PICTURE XC073 VALUE SPACE.
PICTURE XXXXX.
 31510
                                     FILLER
31515
                                     FIL: EK
                                                                                                                                                                                            COAGTO
                                      WUC-OUT
 31520
                                                                                                                                                                                            C98970
                            02
                                                                                                  PICTURE X VALUE SPACE.
PICTURE ZZZZ9.
PICTURE XC503 VALUE SPACE.
                           02 FILLER
02 OUS
02 FILLER
02 FILLER
COM-TITLE-I SYNC.
 31530
                                                                                                                                                                                            C98970
 31540
                                                                                                                                                                                            CORSTO
 31550
                                                                                                  PICTURE X VALUE 1#1.
 31590
                                                                                                                                                                                            C98970
 32000
                  10
                                                                                                                                                                                            C98970
                                                       PICTURE X(32) VALUE
LISTING OF WUC - FREQ PAGE:
 32010
                            02 FILLER
 32020
                                              2 1
                                                                                                                                                                                            COAGTO
                                                                                                  PICTURE ZZ9.
PICTURE XI34 J VALUE SPACE.
PICTURE X VALUE :#:.
                           02 PAGE-RPT
02 FILLER
02 FILLER
 32030
                                                                                                                                                                                            C98970
                                                                                                                                                                                           C98970
 32040
 32050
                           COM-TITLE-2 SYNC.
 32100
                  01
32110
                                                                        WUC FREGI.

PICTURE X (50) VALUE SPACE.

PICTURE X VALUE 1#1.
                                                                                                  PICTURE X[19] VALUE
                                                                                                                                                                                            COASTO
                                                                                                                                                                                            C98970
 32120
                           02 FILLER
02 FILLER
11TLE-13C SYNC.
02 FILLER
32130
32140
                                                                                                                                                                                            C98970
                                                                                                                                                                                            C98970
                                                                                                                                                                                            C98970
32510
                 01
                                                                                                   PICTURE XE 24 J VALUE
                                                                                                                                                                                            C98970
                                                              FOR ISOCHRONAL A/C :. PICTURE XE453 VALUE !: SE. PICTURE X VALUE !!!.
32220
32230
                            02 FILLER
                                                                                                                                                                                            C98970
 32240
                           02 FILLER
TITLE-NON-ISC SYNC.
                  01
 32300
                                                                                                                                                                                            C98970
                            02 FILLER
                                                                                                  PICTURE XE283 VALUE
 32310
                                                                                                                                                                                            C98970
                                                              FOR NON-ISOCHRONAL A/C : PICTURE XE413 VALUE SPACE.
32320
                                                                                                                                                                                            COAGTO
                  02 FILLER
02 FILLER
PROCEDURE DIVISION.
 32330
                                                                                                                                                                                            C98970
32.540
                                                                                                  PICTURE X VALUE 1#1.
                                                                                                                                                                                            C98970
50000
                                                                                                                                                                                            C98970
                  OPEN-FILES.

OPEN INPUT IN-FILE.

OPEN OU.PUT
PERFORM TITLE-IS.
PERFORM TITLE-NI.
 50010
50020
                                                                                                                                                                                            COROZO
                                                                                     OUT-FILE-IS, OUT-FILE-NI.
 50040
                                                                                                                                                                                            C98970
                                                                                                                                                                                            C98970
50050
50060
                                                                                                                                                                                            C98970
                 READ-INPUT.
50100
                           PARTIES AT END GO TO CLOSE-FILES.

IF WUC IS EQUAL TO 1999991 GO TO CLOSE-FILES.

MOVE WUC TO WUC-OUT.

IF FREG-ISC IS EQUAL TO ZERO GO TO PROC-NI.

MOVE FREG-ISC TO OBS.

WRITE OUT-DATA-IS FROM OUT-DATA.
50110
                                                                                                                                                                                            C98970
50130
                                                                                                                                                                                            CORSTO
 50140
                                                                                                                                                                                            C98970
50150
50160
                                                                                                                                                                                            C98970
                                                                                                                                                                                            C98970
                            ADD I TO LINE-IS.

IF LINE-IS IS GREATER THAN NO-LINE-PAGE PERFORM TITLE-IS.
 50170
50180
                                                                                                                                                                                            C98970
                 IF LINE-IS IS GREATER THAN NO-LINE-PAGE PERFORM TITLE-IS.

PROC-NI.

IF FREQ-NI IS EQUAL TO ZERO GO TO READ-INPUT.

MOVE FRLQ-NI TO OBS.

WRITE. O'JT-REC-NI FROM OUT-DATA.

ADD I TO LINE-NI.

IF LINE-NI IS GREATER THAN NO-LINE-PAGE PERFORM TITLE-NI.

GO TO R.AD-INPUT.
 50300
50310
                                                                                                                                                                                            COAGTO
 50320
                                                                                                                                                                                            C98970
50330
50340
                                                                                                                                                                                            C98970
                                                                                                                                                                                            C98970
50350
50360
                                                                                                                                                                                            C98970
50400
                  TITLE-IS.
50410
                            ADD 1 TO PAGE-IS.
                                                                                                                                                                                            COASTO
                           ADD 1 TO PAGE-IS.

MOVE PAUE-IS TO PAGE-RPT.

WRITE OUT-DATA-IS FROM COM-TITLE-I.

WRITE OUT-DATA-IS FROM TITLE-ISC.

WRITE OUT-DATA-IS FROM COM-TITLE-2.
50420
                                                                                                                                                                                            C98970
50440
                                                                                                                                                                                            C98970
                                                                                                                                                                                            C98970
 50450
50460
                            MOVE ZENO TO LINE-IS.
                                                                                                                                                                                            C98970
                  TITLE-NI.
50500
                                                                                                                                                                                            C98970
                            ADD 1 TO PAGE-NI.
50510
                                                                                                                                                                                            C98970
                           MOVE PAGE-NI TO PAGE-RPT.
WRITE OUT-PEC-NI FROM COM-TITLE-I.
WRITE OUT-REC-NI FROM TITLE-NON-ISC.
WRITE OUT-REC-NI FROM COM-TITLE-2.
50520
                                                                                                                                                                                            C98970
 50530
50540
                                                                                                                                                                                            C98970
50550
                 MOVE ZENO TO LINE-NI.
CLOSE-FILES.
50560
                                                                                                                                                                                            COROTA
 50600
                           CLOSE 14-FILE. OUT-FILE-IS, OUT-FILE-NI WITH LOCK. DISPLAY : EOJ C9897P : UPON CONSOLE.
50610
                                                                                                                                                                                            C98970
                                                                                                                                                                                            C98970
50630
1440 CDS
                                                                                                                                                                                      112
 //TPR. TU24
                                                  DISP>[OLD.PASS]
                                                                                                                                                                                      D24-PASS
//TPR.TU25
//TPR.TPRIN
                                                 DISP>(OLD.PASS)
                                     OU
                                                                                                                                                                                      D23-PASS
                                     DU
T/P TU25
T/P TU24
T/P TU12
                                19980 / OR 000
                                1998070R000
                                 10100202020
| 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 
                                                                                                                                                                                      025-IN
            TU29 . 1998070R000
TU25 1998070R000
                       PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

6.11.4 SORT NON-ISOCHRONAL FREQUENCY

6.11.5 WRITE NON-ISOCHRONAL FREQUENCY

```
//C9897K EXEC P9655L,TIME>01.ACCT>D35323007
           //CHG.TUI2
                                                                                                                             CT12
CT12
//CHG.TU25
//CHG.INPUT
                                                                                                                                D25-0UT
                                                                                                                                1440 CDS
00000
                                                                                                                                   C98970
                                                                                                                                   C98970
01040
           DATE-WRITTEN.

REMARKS.

MAINTENANCE STUDY PROGRAM 5C.

PREPARES LISTING OF REQUENCY OF REMOVAL CAIRCRAFT

SUB-SET 11 -v- WUC.

INPUT SORT SEQUENCE

EDEGLIENCY.
                                                                                                                                   C98970
01050
01060
01070
01080
                                                                                                                                   C98970
                                                                                                                                   C98970
01090
                                                                                                                                   C98970
01100
           ENVIRONMENT DIVISION.
                                                                                                                                   C98970
02000
02010
            CONFIGURATION SECTION.
SOURCE-COMPUTER. IBM-360.
OBJECT-COMPUTER. IBM-360.
                                                                                                                                   C98970
                                                                                                                                   C98970
02030
           INPUT-OUTPUT SECTION.
FILE-CONTHC..
                                                                                                                                   C98970
02100
02110
                   SELECT IN-FILE
                                                                                                                                   C98970
                                                                        ASSIGN TO UT-S-TU12
02120
                   RESERVE 1 ALTERNATE AREA.
SELECT JUT-FILE-NI
RESERVE 1 ALTERNATE AREA.
02130
                                                                                                                                   C98970
                                                                       ASSTON TO UT-S-TU25
                                                                                                                                   C98970
02160
02170
                                                                                                                                   C98970
           DATA DIVISION.
FILE SECTION.
10000
                                                                                                                                   C98970
                                                                                                                                   C98970
I0010
            FO IN-FILE
                                                                                                                                   C98970
TOTOO
                   RECORDING MODE IS F
BLOCK CONTAINS 90 RECORDS
                                                                                                                                   C98970
10120
                                                                                                                                   C98970
10130
                   RECORD CONTAINS 20
LABEL RECORDS ARE OMITTED
DATA RECORDS ARE IN-REC.
                                                                      CHARACTERS
                                                                                                                                   C98970
10140
                                                                                                                                   C98970
10150
10160
                   IN-HEC
                                      SYNC .
                                                                                                                                   C98970
 0200
            01
                   02 WUL
02 FILLER
02 FHEW-NT
02 FILLER
                                                                     PICTURE XC53.
PICTURE XC53.
PICTURE S9C53.
                                                                                                                                   C98970
10210
10220
                                                                                                                                   C98970
                                                                                                                                   C98970
10230
10240
                                                                                                                                   C98970
                  02 FILLER
0UT-FILL-NI
RECORDING MODE IS F
BLOCK CUNTAINS 40 RECORDS
RECORD CONTAINS 70
LABEL FECORDS ARE OMITTED
DATA RECORDS ARE OUT-REC-NI.
OUT-REC-NI SYNC.
                                                                                                                                   C98970
13500
            Fυ
13320
13530
                                                                                                                                   C98970
                                                                      CHARACTERS
                                                                                                                                   C98970
13340
                                                                                                                                   C98970
13360
                                                                                                                                   C98970
           01 OUT-REC-NI SYNC.
02 FILLER
PICTURE XE70].

77 PAGE-NI SYNC COMPUTATIONAL
77 LINE-NI SYNC COMPUTATIONAL
77 NO-LINE-PAGE SYNC COMPUTATIONAL
170 OUT-OATA SYNC.
02 FILLER
03 PICTURE XVALUE 1/I.
04 PICTURE XVALUE SPACE.
05 PICTURE XXXXXX
06 PICTURE XXXXX
07 PICTURE XXXXX
08 PICTURE XXXXX
09 FILLER
01 COM-TITLE-1 SYNC.
02 FILLER
02 FILLER
03 FILLER
04 PICTURE XXXXX
                                                                                                                                   C98970
 1400
            01
                                                                                                                                   C98970
C98970
13410
30000
                                                                                                                                   C98970
30050
30130
                                                                                                                                   COASTO
                                                                                                                                   C98970
30150
                                                                                                                                   C98970
C98970
31500
31510
31515
                                                                                                                                    C98970
                                                                                                                                   C98970
31530
31540
31550
                                                                                                                                   C98970
                                                                                                                                   C98970
31590
32000
                                                                                                                                   C98970
                                          LISTING OF FRED WUC PAGE:
                                                                                                                                   C98970
32010
                   02 FILLER
32020
```

```
PAGE-RPT
                                                                                                                                     PICTURE ZZ9.
                                                                                                                                                                                                                                                             C98970
32030
                                     02
                                    02 FILLER
02 FILLER
COM-TITLE-2 SYNC.
                                                                                                                                     PICTURE X C34 3 VALUE SPACE.
                                                                                                                                                                                                                                                              C98970
 32040
                                                                                                                                                                                                                                                              C98970
32050
                                                                                                                                                                                                                                                              C98970
32100
32110
32120
                                     02 FILLER
                                                                                                                                     PICTURE XC193 VALUE
                                                                                                                                                                                                                                                              C98970
                                                                                                                         WUC:.
PICTURE XC503 VALUE SPACE.
PICTURE X VALUE 12:.
                                                                                              FREQ
                                                                                                                                                                                                                                                              C98970
                                    02 FILLER
02 FILLER
TITLE-NON-ISC SYNC.
                                                                                                                                                                                                                                                              C98970
C98970
 32140
 32300
                                                                                                                                                                                                                                                              C98970
                                    02 FILLER
32310
32320
                                                                                                                                     PICTURE XE 28 7 VALUE
                                                                                                                                                                                                                                                              CGRG70
                                                                                    FOR NON-ISOCHRONAL A/G :.

PICTURE X 411 VALUE SPACE.

PICTURE X VALUE :#:.
                                                                                                                                                                                                                                                              C98970
                                     02 FILLER
02 FILLER
 32330
                                                                                                                                                                                                                                                              C98970
                                                                                                                                                                                                                                                              C98970
 32340
                       PROCEDURE UIVISION. OPEN-FILES.
                                                                                                                                                                                                                                                              C98970
C98970
 50000
 50010
                                     OPEN IMPUT IN-FILE.

OPEN QUIPUT OUT-FILE-NI.

PERFORM TITLE-NI.
 50020
                                                                                                                                                                                                                                                              C98970
501140
                                                                                                                                                                                                                                                              C98970
                                                                                                                                                                                                                                                              C98970
 50060
                                                                                                                                                                                                                                                              C98970
C98970
 50100
                        READ-INPUT
                                    J-INPUT.

READ IN-FILE, AT END GO TO CLOSE-FILES.

IF WUC IS EQUAL TO :99999: GO TO READ-INPUT.

MOVE WIC TO WUC-OUT.

IF FREG-NI IS EQUAL TO ZERO GO TO READ-INPUT.

MOVE FREG-NI TO OBS.

WRITE GUT-REC-NI FROM OUT-DATA.

AOD I TO LINE-NI.

IF LINE-NI IS GREATER THAN NO-LINE-PAGE PERFORM TITLE-NI.

GO TO READ-INPUT.

F-NI.
50110
50120
                                                                                                                                                                                                                                                              C98970
                                                                                                                                                                                                                                                              C98970
50130
 50310
                                                                                                                                                                                                                                                              C98970
 50320
                                                                                                                                                                                                                                                              COAGTO
 50330
                                                                                                                                                                                                                                                              C98970
50340
                                                                                                                                                                                                                                                              C98970
                                                                                                                                                                                                                                                              C98970
                                                                                                                                                                                                                                                              C98970
                       TITLE-NI.
ADD I O PAGE-N1.
                                                                                                                                                                                                                                                              C98970
50500
50510
                                                                                                                                                                                                                                                              C98970
                                     ADD I O PAGE-NI MOVE PAGE-RPT.
WRITE CUT-REC-NI FROM COM-TITLE-1.
WRITE CUT-REC-NI FROM TITLE-NON-1SC.
WRITE CUT-REC-NI FROM COM-TITLE-2.
MOVE ZERO TO LINE-NI.
                                                                                                                                                                                                                                                              C98970
C98970
 50520
50530
 50540
                                                                                                                                                                                                                                                              C98970
50550
                                                                                                                                                                                                                                                              C98970
                                                                                                                                                                                                                                                              C98970
 50560
                       CLOSE IN-FILE, OUT-FILE DISPLAY: EOJ C9897: UPON CONSOLE.
 50600
                                                                                                                                                                                                                                                              C98970
                                                                                                                                     OUT-FILE-NI WITH LOCK.
                                                                                                                                                                                                                                                              C98970
 50610
                                                                                                                                                                                                                                                              C98970
                             GOBACK.
PLACE COBOL SOURCE BEFORE
GIN DU **SPACE>CCYL*(11:13)
PLACE TFG DATA BEFORE THIS CARD
 50630
                                                                                                                                                                                                                                                              C98970
 //CHG.TFGIN
                                                                                                                                                                                                                                                       1440 CDS
                                                  DD DISPOSITION OF THE PROPERTY OF THE PROPERTY
 //TPR.TUI2
 //TPR.TU25
                                                                                                                                                                                                                                                        DEB-PASS
                                                   DU
                                                                    *, SPACE > [ TRK , [ 1 , 1 ] ]
 T/P TUI2 10100202020
T/P TU25 1998J70R000
D25-1N
                             TIN DU #75PACEZETRR/E1717
5 1998/70R000
PLACE T/P CONTROL CARDS BEFORE THIS CARD
                 TU25
```

6.11.6 SORT ISOCHRONAL FREQUENCY

```
//T9897L JOB
//C98970 EXEC
//CHG.SORTIN
DD DISPJC.KEEPJ,UNIT)CT+F5.1.DEFENJ,
CT22 I

CT22 I

DSN>6.9877431,
CT22 I

CT
```

6.11.7 WRITE ISOCHRONAL FREQUENCY

```
//C9897L EXEC
                      P965SL.TIME>01.ACCT>035323007
                      PY035L:11ME/U1/ACCT7U35323007

DD D15P>C:PAS5];UNITX[T+F1:1:DEFER]:DSN>+A:9897434;
VOL>SER7(+F1:A+F1:B+F1:C+F1:D+F1:E+F1:F+F1:0+F1:H+F1:
I+F1:J+F1:K+F1:L+F1:N+F1:N+F1:O+F1:P+F1:0+F1:R+F1:S+F1]

DD DSN>+P:9897431:SPACE>(CYL:E009:001])

DD +:SFACE>(CYL:[1:1])

COMBINE COMPILE G, WANG.
//CHG. TU12
                                                                                                            CT12
                                                                                                            CT12
//CHG.TU25
//CHG.INPUT
                                                                                                             025-0UT
                                                                                                              1440 CDS
          COMBINE COMP
DATE-WRITTEN. 1 APR 72.
                                                                                                                C98970
C98970
00000
01040
         DATE-WRITTEN.

REMARKS.

MAINTENA ICE STUDY PROGRAM SE.

PREPARES LISTING OF FREQUENCY OF REMOVAL CAIRCRAFT

SUB-SET 23 -V- WUC.

INPUT SORT SEQUENCE

EDFOLIENCY.
01050
                                                                                                                 C98970
                                                                                                                 C98970
01060
01070
01080
01090
                                                                                                                 C98970
          ENVIRONMENT DIVISION.
02000
                                                                                                                 C98970
          CONFIGURATION SECTION.
SOURCE-COMPUTER. IBM-360.
OBJECT-COMPUTER. IBM-360.
                                                                                                                 C98970
02010
02020
                                                                                                                 C98970
02030
           INPUT-OUTPUT SECTION.
02110
          FILE-CONTROL.
                                                                                                                 C98970
02120
                SELECT IN-FILE
                                                              ASSIGN TO UT-S-TU12
                                                                                                                 C98970
                RESERVE 1 ALTERNATE AREA.
SELECT OUT-FILE-15
HESERVE . ALTERNATE AREA.
02130
                                                                                                                 C98970
02140
02150
                                                              ASSIGN TO UT-S-TU25
                                                                                                                 C98970
                                                                                                                 C98970
          DATA DIVISION.
10000
                                                                                                                 C98970
          FILE SECTION.
FD IN-FILE
10100
                                                                                                                 C98970
                RECORUING MC )E IS F
BLOCK CONTAINS 90 RECORDS
RECUPD CONTAINS 20
10120
                                                                                                                 C98970
10130
                                                                                                                 C98970
                                                            CHARACTERS
                                                                                                                 C98970
                LAREL HECORDS ARE OMITTED DATA REGORDS ARE IN-REC.
10150
10160
                                                                                                                 C98970
          01
                IN-HEC
                                 SYNC .
                                                                                                                 C98970
                02 WUC
02 FREG-15C
02 FILLER
10210
                                                           PICTURE X[5].
PICTURE S9[5].
                                                                                                                 C98970
                                                                                                                 C98970
10230
                      FILLER
                                                           PICTURE XE 10 3.
                OUT-FILE+IS
RECORDING MODE IS F
BLOCK CONTAINS 40 RECORDS
RECORD CONTAINS 70
          FD
11300
                                                                                                                 C98970
11330
                                                                                                                 C98970
11340
                                                            CHARACTERS
                                                                                                                 C98970
                LABEL RECORDS ARE OUT-REC-IS.
OUT-DATA-IS SYNC.
11350
                                                                                                                 C98970
                                                                                                                 C98970
11360
11400
           02 FILLER
WORKING-STORAGE SECTION.
                                                           PICTURE XE 70 J.
11410
                                                                                                                 C98970
                                                                                                                 C98970
30000
                PAGE-15 SYNC COMPUTATIONAL PICTURE S999 VALUE ZERO.
LINE-15 SYNC COMPUTATIONAL PICTURE S999 VALUE ZERO.
NO-LINE-PAGE SYNC COMPUTATIONAL PICTURE S999 VALUE C75,
30060
                                                                                                                 C98970
30140
                                                                                                                 C98970
30150
31500
          01
                OUT-DATA SYNC.
                                                                                                                 C98970
                02 FILLER
                                                           PICTURE X VALUE 1/1,
PICTURE XEO73 VALUE SPACE,
PICTURE 22229.
                                                                                                                 C98970
31510
31515
                                                                                                                 C98970
                02
                      OHS
31520
                                                                                                                 C98970
                      FILLER
                                                           PICTURE XX VALUE SPACE.
31530
                                                                                                                 C98970
                                                           PICTURE XXXXX.
PICTURE XE493 VALUE SPACE.
PICTURE X VALUE !#!.
                      WUC-OUT
                                                                                                                 C98970
                02
                      FILLER
                                                                                                                 C98970
31550
                02
                      FILLER
31590
32000
          01
                COM-TITLE-1 SYNC.
                                                                                                                 C98970
                02 FILLER
                                                           PICTURE XE323 VALUE
                                                                                                                 C98970
32010
                                    LISTING OF FRED - WUC PAGE1.
PICTURE 229.
32020
32030
                02 PAGE-RPT
                                                                                                                 C98970
                                                           PICTURE XE343 VALUE SPACE.
32040
                02 FILLER
                                                                                                                 C98970
                U2 FILLER
COM-TITLE-2 SYNC.
                                                           PICTURE X VALUE 1#1.
32050
                                                                                                                 C98970
                                                                                                                 C98970
32100
          01
                 02 FILLER
                                                           PICTURE XE 193 VALUE
                                                                                                                 C98970
                                           FREO WUCI.

PICTURE X1503 VALUE SPACE.

PICTURE X VALUE 1#1.
                                                                                                                 C98970
32120
                02 FILLER
02 FILLER
TITLE-15C SINC.
                                                                                                                 C98970
32130
32140
                                                                                                                 C98970
                                                                                                                 C98970
          01
32200
32210
                02 FILLER
                                                           PICTURE RE243 VALUE
                                                                                                                 C98970
                                     FOR ISOCHRONAL A/C 1.
PICTURE XE&53 VALUE SPACE.
                                                                                                                 C98970
32220
                02 FILLER
32230
                     FILLER
                                                           PICTURE X VALUE IFI.
                                                                                                                 C98970
                                                                                                                 C98970
          PROCEDURE UIVIS: ON.
Snuno
          OPEN-FILES.
                                                                                                                 C98970
50010
                OPEN INPUT IN-FILE.

OPEN OUTPUT OUT-FILE-IS.
                                                                                                                 C98970
50020
50040
                PERFORM TIT. E-15.
                                                                                                                 C98970
SOUSO
```

```
50100
                                     READ-INPUT.
                                                                                                                                                                                                                                                                                                                                                                                                        C98970
                                                        D-INPUT.

READ IN-FILE, AT END GO TO CLOSE-FILES.

IF WUC IS ELUAL TO 1999991 GO TO READ-INPUT.

MOVE WUC TO WUC-OUT.

IF FREG-ISC IS EQUAL TO ZERO GO TO READ-INPUT.

MOVE FREG-ISC TO OBS.

WRITE OUT-D'TA-IS FROM OUT-DATA.

ADD I TO LINE-IS.

IF LINE-IS AS GREATER THAN NO-LINE-PAGE PERFORM TITLE-IS.

GO TO READ-INPUT.
                                                                                                                                                                                                                                                                                                                                                                                                        C98970
C98970
50120
 50130
                                                                                                                                                                                                                                                                                                                                                                                                         C98970
50140
                                                                                                                                                                                                                                                                                                                                                                                                         C98970
  50150
50160
50170
                                                                                                                                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                                                                                                                                         C98970
 50180
                                                                                                                                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                                                                                                                                         C98970
50360
                                    TITLE-IS.

ADD 1 TO PAGE-IS.

MOVE PAGE-IS TO PAGE-RPT.

WRITE OUT-DATA-IS FROM COM-TITLE-I.

WRITE OUT-DATA-IS FROM COM-TITLE-ISC.

WRITE OUT-DATA-IS FROM COM-TITLE-2.
                                                                                                                                                                                                                                                                                                                                                                                                         C98970
 50400
50410
                                                                                                                                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                                                                                                                                         C98970
50420
 50430
                                                                                                                                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                                                                                                                                         C98970
50440
50450
                                   MOVE ZERO TO LINE-IS.

CLOSE-FILES.

CLOSE IN-FILE, OUT-FILE-IS

DISPLAY : EUJ C9897 : UPON CONSOLE.
50460
                                                                                                                                                                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                                                                                                                                                                        C98970
50600
 50610
                                                                                                                                                                                                                                                                             WITH LOCK.
                                                                                                                                                                                                                                                                                                                                                                                                         C98970
                                           DISPLAY T EDG GOOD TO THE PROPERTY OF THE PROP
50620
                                                                                                                                                                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                                                                                                                                                                         C98970
50630
 //CHG.TFG1N
                                                                                                                                                                                                                                                                                                                                                                                              1440 CDS
/+ Pt
//TPR.TU12
                                                                                                                                                                                                                                                                                                                                                                                              T12
//TPR.TU25
//TPR.TPR1N
T/P TU12
T/P TU25
                                                                                                                                                                                                                                                                                                                                                                                             D25-PASS
D25-IN
                                              5 1998070R0J0
PLACE T/P CON ROL CARDS BEFORE THIS CARD
                          TU25
```

6.11.8 SORT REMOVAL INTERVALS

```
//T9897H J08
                            01. G. WANG
                                                          : PRTY>02 TYPRUN>HOLD
                           P9622N, m>199.TIME>05.ACCT>035323007
DD 011.P>C.KEEP J.UNIT>CA+F5.2.DEFER J.
//C9897G EXEC
                                                                                                                                         5DS
//CHG.SORTIN
                                                                                                                                        CT22/23 1
                            DSN2+E . 9897435.
                                                                                                                                       CT22
                            VOL >SER)( +F5, A+F5, B+F5, C+F5, D+F5, E+F5, F+F5, G+F6, H+F5, C122
1+F5, J+F5, K+F5, L+F5, M+F5, N+F5, O+F5, P+F3, Q+F5, R+F5, S+F5 ), C122
DCB>CLR*CL>0020, BLKSIZE>1800 ), LABEL>C, NSL, RETPD>099 )
"
//CHG.SORTOUT
                            DO D1SP): KEEP].UNIT): A+F1.2.DEFER].DSN)+A,9897436.
VOL>SER): +F1.A+F1.8+F1.C+F1.D+F1.E+F1.F+F1.6+F1.H+F1.
                            1+F1+J+: 1.K+F1+L+F1.M+F1.N+F1.O+F1.P+F1.Q+F1.R+F1.S+F1.J.CT12
 7// DCB>[LRFCL>0020.RLKSIZE>1800]
7//CH0,SYSIN DU +,DCB>BLKSIZE>2800,5PACE>[TRK,[1,13]
SORT FIELDS>(017,001.CH:A,019,001.CH:A,001.008,CH:A]:812E>E0800000
MODS E15>[E15:008-SOI:TLIB:N]:E18>[E18:024.SORTLIB:N]
//CHO.SYSIN
```

6.11.9 CUMULATIVE DISTRIBUTION OF REMOVAL INTERVALS

```
//C9897H EXEC P9655L. 1ME>07. ACCT>035323007
                               P9030L: 1ML/07:ACCT/D35323007

DD D13PXC:PASS J:UNITYCT+F1:1.DEFER J:DSN>+A.9897436.
VUL>SEPYC+F1:A+F1:B+F1:C+F1:D+F1:E+F1:F+F1:G+F1:H+F1:
1+F1:J+F1:K+F1:L+F1:M+F1:N+F1:O+F1:P+F1:G+F1:R+F1:S+F13

DD D13PXC:PASS J:UNITYCT+F7:1.DEFER J:DSN>+8.9897437.
VUL>SEPXC:F7:A+F7:B+F7:C+F7:D+F7:E+F7:G+F7:G+F7:G+F7:F7:T-1+F7:F7-F7:G+F7:H+F7:D+F7:C+F7:D+F7:C+F7:F7-F7:G+F7:R+F7:S+F73

DU +SPACEXCCYL:C1:133
 //CHG. TU12
                                                                                                                                                   CT12
                                                                                                                                                   CT12
 //CHG.TU24
                                                                                                                                                   CT24
                                                                                                                                                      T24
              INPUT DU + SPACESCOYL.CI
COMBINE COMPILE
DATE-WRITTEN. 7 APR 72.
 //CHG. INPUT
                                                                                                                                                      1440 CDS
00000
                                                                                                          G. WANG.
 01040
                                                                                                                                                          C98970
             DATE-WRITTEN. 7 APK 72.
REMARKS.
TASK 50 HIST OF WUC.
ENVIRONMENT DIVISION.
CONFIGURATION SCTION.
SOURCE-COMPUTER. 18M-360.
OBJECT-COMPUTER. 18M-360.
INPUT-OUTPUT SESTION.
01050
                                                                                                                                                          C98970
01060
                                                                                                                                                          C98970
                                                                                                                                                          C98970
02010
                                                                                                                                                          C98970
 02020
                                                                                                                                                          C98970
02030
                                                                                                                                                          C98970
02100
                                                                                                                                                          C98970
              FILE-CONTROL.
                                                                                                                                                          C98970
                      SELECT IN-FILE
RESERVE 1 ALTERNATE AREA,
SELECT HIST-FILE
02120
                                                                                                                                                          C96970
                                                                                    ASSIGN TO UT-S-TULE
02130
                                                                                                                                                          C98970
V2140
                                                                                    ASSIGN TO UT-S-TURA
                                                                                                                                                          C98970
                      RESERVE 1 ALTERNATE AREA. SELECT CUT-OFF-FILE
02150
09000
                                                                                    ASSIGN TO DA-S-DT03
                                                                                                                                                          C98970
09010
                               PESLAVE 1 ALTERNATE AREA.
                                                                                                                                                         C98970
```

```
DATA DIVISION.
                                                                                                                      C98970
10000
                                                                                                                     C98970
10010
           FILE SECTION.
11100
           FD
               IN-FILE
                 RECORDING MODE IS F
BLOCK CONTAINS 90 RECORDS
RECORD CONTAINS 20
                                                                                                                      C98970
11120
                                                                                                                      C08970
                                                               CHARACTERS
                                                                                                                      C98970
11140
11150
                 LABEL RECORDS ARE OMITTED
DATA RECORDS ARE IN-REC.
IN-REC SYNC.
                                                                                                                      C98970
11160
                                                                                                                      C98970
                                                                                                                      C98970
           01
11170
                                                             PICTURE X(5).
PICTURE X(4).
PICTURE S9(6).
                 02
02
02
                       WUC
FILLER
                                                                                                                      C98970
11180
11182
11183
                                                                                                                      C98970
                       OBS
OBS-1 REDEFINES OBS
FILLER
                                                                                                                      C98970
                                                              PICTURE S99999999
11184
                                                                                                                      C98970
                                                                                                                      C98970
111A5
                 02
                                                              PICTURE X.
11186
                        ISCHROMAL-NEW
                                                                                                                      COASTO
                                                              PICTURE X.
                                                                                                                      C98970
11187
11188
                 02
                        FILLER
                                                              PICTURE X.
                        DATA-TYPE-NEW
                                                                                                                      C98970
                       FILLER
                                                              PICTURE X.
                                                                                                                      C98970
11189
                  02
                 02 FILLER
HIST-FILE
HECORDING MODE IS F
BLOCK CONTAINS 15 RECORDS
RECORD CONTAINS 130
LAREL RECORDS ARE OMITTED
DATA RECORDS ARE HIST-REC.
           FO
12100
12120
                                                                                                                      C98970
                                                                                                                      C98970
12130
12140
                                                                CHARACTERS
                                                                                                                      C98970
                                                                                                                      C98970
12160
                 HIST-REC SINC.
                                                                                                                      C98970
                                                              PICTURE X[ 1303.
12180
                 02 FILLEN CUT-OFF-FILE
RECORDING MODE IS F
BLOCK CONT/INS 20 RECORDS
RECORD CONTAINS 80
LABEL RECORDS ARE STANDARD
DATA RECORDS ARE CUT-OFF-REC.
CUT-OFF-RE: SYNC.
                                                                                                                      C98970
29000
                                                                                                                      C98970
29010
29020
                                                                                                                      C98970
                                                               CHARACTERS
                                                                                                                      C98970
 29030
29040
 29050
                                                                                                                      C98970
                                                                                                                      C98970
29060
           01
                 05 N1-CUT-OFF
05 ISO-CUT-OFF
05 FILLER
                                                              PICTURE 9053.
PICTURE 9053.
PICTURE X0703.
                                                                                                                      C98970
 29070
                                                                                                                      C98970
290A0
                                                                                                                      C98970
29090
           WORKING-STORAG SECTION.
77 KNT SYNC PICTURE S905].
01 FILLER SYNC.
 30000
                                                                                                                      C98970
30010
                                                                                                                      C98970
                                                                                                                      C98970
30020
                 02 FREW-HIST-VALUE OCCURS 1000 TIMES PICTURE S9(5)
COMPUT TIONAL.
A PICTURE S9(5) COMPUTATIONAL.
 30030
                                                                                                                      C98970
30040
                                                                                                                      C98970
 30050
                                                                                                                      C98970
                                                            PICTURE 9999 VALUE ZERO.
PICTURE X VALUE 121.
PICTURE X VALUE 111.
                 NO-OF-HISTS
TWO SYNC
 30060
           01
                                                   SYNC
                                                                                                                      C98970
30070
           01
                                                                                                                      C98970
                 ONE
CNT SYNG
 30080
                                     SYNC
                                                                                                                      C98970
                                                              PICTURE S9[5] COMPUTATIONAL.
30090
           n1
                                                                                                                      COROTA
                  CUR-WUC-T SYNC.
30100
                                                                                                                      C98970
                                                              PICTURE XEST VALUE I WUC>:. PICTURE XEST.
                 02 FILLER
02 CUR-WUC
                                                                                                                      C98970
C98970
30110
30120
                                                              PICTURE X.
PICTURE X.
PICTURE S999 VALUE -1 SYNC.
 30170
           01
                 ISCHRONAL SYNC
                                                                                                                      C98970
                 DATA-TYPE SYNC
MINUS-ONE COMPUTATIONAL
REPURI-1D SYNC.
30180
           01
                                                                                                                      C98970
30190
                                                                                                                      C98970
32000
32010
                                                                                                                      C98970
C98970
           01
                                                              PICTURE XESO J VALUE
                 02 FILLEH
                        15 1897C60 1F7919-02 142-8 1 1/2
FILLER PICTURE X(50) VALUE SPACE.
32020
                                                                                                                      C48970
32030
                                                                                                                      C98970
                        FILLER
                                                              PICTURE XC303 VALUE
                 HEAN COMPUTATIONAL SYNC PICTURE SQ17349.
VARIANCE COMPUTATIONAL SYNC PICTURE SQ173499.
TEMP-COMP PICTURE SQ173499.
                           :
32450
                                                                                                                      C98970
46000
                                                                                                                      C98970
46010
           01
                                                                                                                      C98970
                                                                                                                      C98970
46020
           01
                 MEAN-VARIANCE-LINE SYNC.
46100
                 02 FILLER
                                                              PICTURE XC503 VALUE
46110
                                                                                                                      C98970
46120
                                                                                                                      C98970
                 02 FILLER
46130
                                                              PICTURE XC193 VALUE
                                                                                                                      C98970
                                                    MEAN >:.
46140
                                                                                                                      C98970
                                                              PICTURE ZZZ9.9.
PICTURE XC301 VALUE
VARIANCE >1.
PICTURE ZZZZZ29.9.
PICTURE XC161 VALUE
                 02
                        MEAN-HOT
                                                                                                                      C98970
46160
46170
                 02
                       FILLER
                                                                                                                      C98970
                       VARIANCE-RPT
                                                                                                                      C98970
46180
                 02
                 02 FILLER
46190
                                                                                                                      C98970
                                                          PICTURE S9999V99 VALUE -9999.9.
PICTURE S9999V99 VALUE C9999.9.
PICTURE S9553 VALUE ZERO.
PICTURE 999V99 VALUE ZERO.
PICTURE 9 VALUE ZERO.
PICTURE X VALUE 11:.
46200
                 HIST-VALUE -MAX SYNC
47000
                                                                                                                      COASTA
                 HIST-NO-OF-OBS SYNC
HIST-NO-OF-OBS SYNC
HIST-NO-OF-INTERVALS SYNC
 47010
                                                                                                                      C98970
47020
           01
                                                                                                                      C98970
47030
           01
                                                                                                                      C98970
                 HIST-INPUT-VMAX-VMIN SYNC
HIST-DIST SYNC
47040
                                                                                                                      C98970
                                                                                                                      C98970
C98970
47050
           01
47060
           GI
                 HIST-INUEX SYNC COMPUTATIONAL
47070
                                                              PICTURE 5999
                                                                                      VALUE ZERO.
                                                                                                                      C98970
                 HIST-INDEX-2 SYNC COMPUTATIONAL
           01
47080
                                                                                                                      C98970
47090
                                                              PICTURE S999
                 HIST-TEMP SYNC
HIST-INTERVAL-SIZE SYNC
47100
                                                             PICTURE S9999999 VALUE ZERO.
PICTURE S999999 VALUE ZERO
                                                                                                                      C98970
                                                                                                                      C98970
```

```
COMPUTATIONAL.
                                                                                                                                                                                        C98970
                                                                                                                                                                                        C98970
                                                                                                 PICTURE X
                                                                                                                                     VALUE 101.
47150
                 01 HIST-SCALE-VALUE SYNC COMPUTATIONAL
PICTURE S999 VALUE (1.
01 HIST-PERCENT SYNC PICTURE S999V99 COMPUTATIONAL.
01 HIST-CUM SYNC PICTURE S999V99 COMPUTATIONAL.
                                                                                                                                                                                        C98970
47160
                                                                                                                                                                                        C98970
47170
                                                                                                                                                                                         C98970
47180
                 01 HIST-CUM SYNC
01 HIST-LINE SYNC COMPUTATIONAL
                                                                                                                                                                                        C98970
                                                                                                                                                                                        C98970
47200
                                                                                                PICTURE S999 VALUE ZERO.
PICTURE S999 VALUE <75.
PICTURE S999.
PICTURE XC103 VALUE
                                                                                                                                                                                         C98970
47210
                           HIST-PAGE-FLAG SYNC
HIST-LINE-CNT SYNC
                  01
                                                                                                                                                                                        C98970
47230
                            HIST-LAH- SYNC
                                                                                                                                                                                         COASTO
                                                                        IERROR NO 01.
 47310
                                                                                                                                                                                        C98970
                           HIST-ERH-3 SYNC.
                                                                                                                                                                                        C98970
 47320
                  01
                                                                                                 PICTURE XC53 VALUE
PICTURE S9C53 VALUE
PICTURE XC103 VALUE
                            02 FILLER
02 HIST-ERH-2
                                                                                                                                    VALUE IBS > 1.
 47330
                                                                                                                                                                                        C98970
                                                                                                                                      VALUE ZERO.
                           HIST-ERH-4 SYNC
                  01
                           HIST-ERK-5 SYNC
 47.350
                                                                                                                                                                                        C98970
                                                                                                                                                                                        C98970
 47360
 47370
                                                                                                PICTURE XC 101 VALUE
                                                                                                                                                                                         C98970
                                                                         :-MIN BAD. :
 47380
                                                                                                                                                                                         C90970
 47390
                            HIST-OUT-MANGE-VALUE SYNC
                                                                                                   PICTURE S999 COMPUTATIONAL.
 47500
                           FILLER SYNC. 02 FILLER OCCURS 200 TIMES.
                                                                                                                                                                                         CGAGTO
                                                                                                                                                                                        C98970
 47510
                                     03 H.ST-TABLE
03 H.ST-UPPER-LIMIT
03 HIST-TABLE-SCALED
                                                                                                PICTURE S953 COMPUTATIONAL.
PICTURE S9999494 COMPUTATIONAL.
PICTURE S999 COMPUTATIONAL.
                                                                                                                                                                                         C98970
 47530
 47540
                                                                                                                                                                                        C98970
                            HIST-NEW-PAGE SYNC.
 47560
                  01
                                                                                                                                                                                         C98970
                            02 FILLER
02 FILLER
02 FILLER
                                                                                                 PICTURE X
                                                                                                 PICTURE X VALUE 111.
PICTURE XC1223 VALUE SPACE.
PICTURE XC53 VALUE IPAGE 1.
 475A0
                                                                                                                                                                                         C98970
  475R2
                                                                                                                                                                                         C98970
                                     HIST-FAGE-NO
FILLEP
 47584
                            02
                                                                                                  PICTURE 9.
                                                                                                                                                                                         COROTO
                                                                                                                                 VALUE 1#1.
 47590
                                                                                                  PICTURE X
                                                                                                                                                                                        C98970
                            02
 47600
47610
                            HIST-TITLE SYNC.
                  01
                                                                                                                                                                                         C98970
                            02 FILLER
02 HIST-TITLE-1.
03 FILLER
                                                                                                 PICTURE XE33 VALUE IS 1.
                                                                                                                                                                                        C98970
 47620
                                                                                                                                                                                         C98970
                                                                                                 PICTURE X[ 10] VALUE SPACE.
 47621
                                                                                                                                                                                        C98970
  47630
                                     HIST-YITLE-2.
                                                                                                PICTURE XC103 VALUE SPACE.
PICTURE XC103 VALUE SPACE.
PICTURE XC103 VALUE SPACE.
PICTURE XC243 VALUE
                            03 F.LLER
02 HIST-TITLE-3
02 HIST-TITLE-4
 47631
                                                                                                                                                                                        C98970
 47640
                                                                                                                                                                                        C98970
 47650
                                                                                                                                                                                         C98970
                           02 FILLEH
1 NO OF ORSERVAT
02 HIST-10-0F-0RS-RPT
                                                                                                                                                                                        C98970
 47660
47070
                                                                                               IONS >1.
PICTURE ZZZZ9.
                                                                                                                                                                                         C98970
 47680
                                                                                                                                                                                        C98970
                                                                                                 PICTURE XC133 VALUE
                                                                                                                                                                                         C98970
                            . VALUE MAX > 1.
02 HIST-WALUE-MAX-RPT
47700
                                                                                                                                                                                        C98970
 47710
                                                                                                 PICTURE ---
                                                                                                                                                                                        C98970
47720
47730
                            02 FILLER
                                                                                                 PICTURE XC133 VALUE
                                                                                                                                                                                         C98970
                            3 VALUE MIN > 1.
02 HISI- ALUE-MIN-RPT
                                                                                                                                                                                         C98970
 47740
                                                                                                 PICTURE ----.9.
47T50
                            02 FILLER
                                                                                                 PICTURE XC183 VALUE
                                                                                                                                                                                         COAGTO
                                                                                                                                                                                        C98970
 47760
                                                                                                   #: .
                  01 HIST-UOT-LINE SYNC. 02 FILLE!
47900
47910
                                                                                                 PICTURE XESO 1 VALUE
                                                                                                                                                                                         C98970
47920
47922
                            no FILLER
                                                                                                 PICTURE XE 803 VALUE
                                                                                                                                                                                        C98970
 47930
                                                                                                                                                                                        C98970
 47940
                              C98970
                           HIST-LABEL SYNC.
 47950
                 01
                                                                                                                                                                                        C98970
                            02 FILLER
                                                                                                 PICTURE X1503 VALUE
                                                                MIDPNT PONT CUM FREG 1...5...10...15...20.1.
PICTURE XC803 VALUE
 47970
                                                                                                                                                                                        C98970
                           PICTURE X[80] VALUE 1...
125...30...35...40...48...80...58...60...65...70...76...80...
185...40...48...80...58...60...65...70...76...80...
185...40...48...80...58...60...65...70...76...80...
185...40...48...80...58...60...65...70...76...80...
185...40...48...80...58...60...65...70...76...80...
185...48...48...80...58...60...65...70...76...80...
185...48...48...48...80...58...60...65...70...76...80...
185...48...48...80...58...60...65...70...76...80...
185...48...48...80...58...80...58...60...65...70...76...80...
185...48...48...80...58...80...58...80...60...65...70...76...80...
185...48...48...80...58...80...58...80...60...65...70...76...80...
185...48...48...80...58...80...58...80...60...65...70...76...80...
185...48...48...80...95...80...95...90...95...90...95...90...
 47974
                                                                                                                                                                                        C98970
 47980 -
                                                                                                                                                                                        C98970
47490
                                                                                                                                                                                        C98970
  48000
                                                                                                                                                                                         C98970
48010
                                                                                                                                                                                        C98970
 48020
                                                                                                                                                                                        C98970
                                                                                                PICTURE Z29.
PICTURE ----9.
PICTURE Z29.9.
PICTURE Z29.9.
PICTURE Z29.9.
PICTURE Z29.9.
PICTURE Z22.9.
                                 FILLEY:
HIST-MID-POINT-RPT
HIST-PERCENT-RPT
48030
                                                                                                                                                                                         C98970
48040
                            02
                                                                                                                                                                                        C98970
48060
                                  FILLER
HIST-CUM-RPT
HIST-CREO-RPT
48070
                            02
                                                                                                                                                                                        COROTA
48080
                                                                                                                                                                                        C98970
                            02
48100
                                                                                                                                                                                         C98970
45110
                            02 FILLER
                                                                                                PICTURE X VALUE SPACE.
                                                                                                                                                                                        C98970
48120
                            02 HIST-POINT OCCURS 100 TIMES
                                                                                                                                                                                        C98970
                                                                                                PICTURE X.
46130
                                                                                                                                                                                        C98970
48140
                            02 FILLES
                                                                                                 PICTURE X VALUE 1#1.
48150
                  01
                          HIST-OUT-RANGE-HEC SYNC.
                                                                                                                                                                                        C98970
                          02 FILLER PICTURE XESDS VALUE

1. NUMBER OF OUT OF RANGE VALUES >1.

02 HIST-OUT-RANGE-RPT PICTURE ZZ9.

02 FILLER PICTURE XESDS VALUE

48160
                                                                                                                                                                                        C98970
                          02 HIST-OUT-RANGE-RPT
02 FILLER
02 FILLER
HIST-SCALE-LINE STNC.
48180
                                                                                                                                                                                        C98970
48190
                                                                                                                                                                                        C98970
48191
                                                                                                                                                                                         C98970
                 01
48200
                                                                                                                                                                                        C98970
                                                                                                 PICTURE XC273 VALUE
48210
                           02 FILLER PICTURE XC27) VALUE

1/ SCALING FACTOR > 1.

02 HIST-SCALE-RPT PICTURE ZZ9.

02 FILLER PICTURE XC099) VALUE SPACE.
                            02 FILLER
MA220
                                                                                                                                                                                         C98970
48230
                                                                                                                                                                                        C98970
                                                                                                                                                                                        C98970
48250
                                   FILLER
                                                                                                 PICTURE X VALUE 181.
                                                                                                                                                                                        C98970
```

```
48300 01 FILLEH STNC.
                                                                                                                                        C98970
                    OR HIST-JALUE OCCURS 1000, TIMES
PICTURE $9999V9 COMPUTATIONAL.
 48310
                                                                                                                                        C98970
                                                                                                                                         C98970
 48320
            PHOCEDURE DIVISION.

OPEN INPU: CUT-OFF-FILL.

HEAD CUT-OFF-FILE AT END GO TO CLOSE-FILES.

CLOSE CUT-OFF-FILE WITH LOCK.
 50000
                                                                                                                                         C98976
                                                                                                                                         C98970
 10004
 50002
                                                                                                                                         C98970
 50003
                                                                                                                                        C98970
                    OPEN INPUT IN-FILE.
OPEN OUTP IT HIST-FILE.
 50010
                                                                                                                                         C98970
                                                                                                                                         C98970
 50020
                    MOVE 1040 TO KNT.
PERFORM RESET-TABLE THRU END-RST-TABLE,
HEAD 1N-FILE, AT END GO TO CLOSE-FILES.
WRITE HIST-REC FROM REPORT-ID.
 50030
 50040
                                                                                                                                        C98970
 50050
                                                                                                                                        C98970
50060
                                                                                                                                        C98970
50100
 50110
                    MOVE 1 TO HIST-NO-OF-OBS.
                                                                                                                                         C98970
                    MOVE 1 TO HIST-NO-OF-DBS.

MOVE WAL TO CUM-WUC.

MOVE UAIA-TYPE-NEW TO DATA-TYPE.

MOVE ISCHNONAL-NEW TO ISCHRONAL.

IF DATA-TYPE IS EQUAL TO ONE GO TO WEEKS-DATA ELSE GO TO

FLT-DATA.
50120
                                                                                                                                        C98970
 50140
50150
                                                                                                                                        COASTO
 50160
                                                                                                                                        C98970
50170
                                                                                                                                        C98970
 20200
                                                                                                                                        C98970
                   HEAU IN-FILE, AT END GO TO CLOSE-FILES,
IF DATA-TYPE-NEW IS FOUAL TO 191 GO TO CLOSE-FILES.
IF WUC 15 NOT EQUAL TO CUR-WUC GO TO PARA-2.
ADD 1 TO HIST-NO-OF-OBS.
IF DATA-TYPE IS EQUAL TO ONE GO TO WEEKS-DATA ELSE GO TO
50410
                                                                                                                                        C98970
50220
                                                                                                                                        C98970
50230
                                                                                                                                         C98970
50250
                                                                                                                                        C98970
50260
50270
                                                     FLT-DATA.
                                                                                                                                        C98970
50300
                                                                                                                                        C98970
                   PERFORM SET-HISTOG THRU END-SH.
PERFORM RESET-TABLE THRU END-RST-TABLE.
50310
                                                                                                                                        C98970
50320
                                                                                                                                        C98970
            GO 10 PARA-1.
50330
50400
                                                                                                                                        COAGTO
50410
                    MOVE ZERO TO CHT.
                                                                                                                                        C98970
50420
                                                                                                                                        C98970
                    ADD 1 TO CHT.
50430
                                                                                                                                        C98970
50440
                    MOVE MINUS-ONE TO HIST-VALUE [CNT]. MOVE ZERO TO FREQ-HIST-VALUE [CNT].
50445
                                                                                                                                        C98970
            IF CNT IS LLSS THAN KNT GO TO RST.
MOVE ZEHO TO KNI.
END-RST-TABLE. EXIT.
50450
                                                                                                                                        C98970
50455
                                                                                                                                        C98970
50460
                                                                                                                                        C98970
50510
            SET-HISTOG.
                   -HISTOG.

IF ISCHHOHAL IS EQUAL TO ONE AND HIST-NO-OF-085 IS NOT GREATER THAN ISO-CUT-OFF GO TO END-5H.

IF ISCHHOHAL IS EQUAL TO TWO AND HIST-NO-OF-085 IS NOT GREATER THAN NI-CUT-OFF GO TO END-5H.
50512
                                                                                                                                        C98970
                                                                                                                                        C98970
50514
50516
                                                                                                                                        C98970
           GHEATER THAN NI-CUT-OFF GO TO END-SH.

IF ISCHRONAL IS EQUAL TO ONE MOVE 1 ISO 1 TO

HIST-TITLE-4, ELSE MOVE: NON-ISO 1 TO HIST-TITLE-4.

IF DAIA-T/PE IS EQUAL TO ONE MOVE I WEEKS 1 TO

HIST-TITLE-3, ELSE MOVE: FLT-HOURS: TO HIST-TITLE-3.

MOVE CLIM-WICE-T TO HIST-TITLE-1.

PERFORM WRITE-HISTOGRAM THRU END-HIST.

IF HIST-F_AG IS EQUAL TO:1: THEN GO TO CFI.

ADD 1 TO '10-OF-HISTS.

END-SH. EXIT.

WEEKS-DATA.

MOVE ZERC TO CAT.
                                                                                                                                        C98970
50518
50520
                                                                                                                                        C98970
50530
                                                                                                                                        C98970
50540
50550
                                                                                                                                        C98970
50560
                                                                                                                                        C98970
50660
                                                                                                                                        COROTA
50610
                                                                                                                                        C98970
50620
                                                                                                                                         C98970
51000
                                                                                                                                        C98970
                    MOVE ZENC TO CHT.
51010
                                                                                                                                        C98970
51020
             WEER-A.
ADD 1 TO CHT.
                                                                                                                                        COAGTO
51 030
                                                                                                                                        C98970
                   ADD 1 TO CNT.

IF ORS IS EQUAL TO HIST-VALUE (CNT) 80 TO WEEK-C.

IF FREQ-MIST-VALUE (CNT) IS EQUAL TO ZERO 80 TO WEEK-B.

IF CNT IS LESS THAN 1000 80 TO WEEK-A.

DISPLAY: MORE THAN 1000 FREQUENCY OCCURENCES 1 UPON CONSOLE.
51 440
                                                                                                                                        C98970
C98970
51050
51060
                                                                                                                                        C98970
51070
                                                                                                                                        C98970
                    60 10 CF1.
51050
                                                                                                                                        C98970
51090
                    MOVE ORS TO HIST-VALUE (CNT).
IF CHT IS GHEATER THAN KNT THE: MOVE CNT TO KNT.
51100
                                                                                                                                        C98970
                                                                                                                                        C98970
51120
                    ADD 1 TO FREG-HIST-VALUE [CNT].
51130
                                                                                                                                        C98970
            GO TO REAGE.
51140
52000
                                                                                                                                        C98970
                    MOVE ZERO TO CHT.
                                                                                                                                        C98970
52020
            FLI-A.
                                                                                                                                        C98970
                    ADD 1 TO CHT.
52030
                                                                                                                                        C98970
                   IF ORS-1 IS EQUAL TO HIST-VALUE [CNT] 60 TO FLT-C.

IF FREQ-HIST-VALUE [CNT] IS EQUAL TO ZERO GO TO FLT-R.

IF LNT 1S LESS THAN 1000 GO TO FLT-A.

DISPLAY : MORE THAN 1000 FREQUENCY OCCURENCES I UPON CONSOLE.
52040
52050
                                                                                                                                        C94970
52060
                                                                                                                                        C98970
52070
                                                                                                                                        C98970
                    GO TO CF1
52080
                                                                                                                                        C98970
            FLT-B.

MOVE 083-1 TO HIST-VALUE (CNT).

IF CNT IS GREATER THAN RNT THEN MOVE CNT TO KNT.
52090
                                                                                                                                        C98970
52100
                                                                                                                                        C98970
52110
                                                                                                                                        C98970
52120
52130
                                                                                                                                        C98970
C98970
            FLT-C. ADD 1 TO FREQ-HIST-VALUE ECNT).
52140
                    GO TO HEALL.
                                                                                                                                        C98970
            CLOSE-FILES.
52200
                                                                                                                                        C98970
                    PERFORM SET-HISTON THRU END-SH.
```

```
CF1.
52207
                                                                                                                                                                   COROTO
                        CLOSE IN-FILE, HIST-FILE.
                                                                                                                                                                   C98970
                        IF HIST-FLAO IS EQUAL TO 11: DISPLAY : HIST ERROR : UPON CONSOLE.

OISPLAY : NO OF HISTOGRAMS > : NO-OF-HISTS UPON CONSOLE.

OISPLAY : EOJ CY897 : UPON CONSOLE.
52211
                                                                                                                                                                   C98970
52212
                                                                                                                                                                   C98970
52220
                                                                                                                                                                   C98970
52230
               GORACK.
COMPUTE-MEAN-VARIANCE.
                                                                                                                                                                   C98970
95000
                                                                                                                                                                   C98970
                        MOVE ZERO TO CHT.
95010
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
95030
                                                                                                                                                                   C98970
                       AOD 1 TO CNT.

AOD 1 TO CNT.

COMPUTE TEMP-COMP > HIST-VALUE [CNT] * FREG-HIST-VALUE [CNT],

ADD TEMP-COMP TO MEAN,

IF CNT IS LESS THAN KNT GO TO CMV-I.

DIVIDE HIST-NO-OF-OBS INTO MEAN,

MOVE ZERO TO CNT,

MOVE ZERO TO VARIANCE,

TO WIST-NO-OF-OBS IS LESS THAN 2 GO TO END-CMV.
95040
95050
                                                                                                                                                                  C98970
95060
                                                                                                                                                                   COROTO
95080
                                                                                                                                                                   C98970
95090
                                                                                                                                                                   C98970
95100
                                                                                                                                                                   C98970
95105
                                                                                                                                                                   C98970
95110
                                                                                                                                                                   C98970
                        ADD 1 TO CAT.

COMPUTE TEMP-COMP > [[HIST-VALUE [CAT] - MEAN] ++ 2] +
95120
                                                                                                                                                                    C98970
95130
                                                                                                                                                                   C98970
95140
                                                                                       FREQ-HIST-VALUE [CNT].
                                                                                                                                                                   C98970
                        ADD TEMP-COMP TO VARIANCE.

IF CNT IS LESS THAN KNT GO TO CMV-2.

COMPUTE VARIANCE > VARIANCE / (HIST-NO-OF-OBS - 1).

MOVE MEAN TO MEAN-RPT.
95150
95160
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
95170
                                                                                                                                                                   C98970
95180
              MOVE MAN TO MEAN-RPT,
MOVE VARIANCE TO VARIANCE-RPT,
WRITE HIST-REC FROM MEAN-VARIANCE-LINE,
END-CMV. EXIT,
WRITE-HISTOURAM,
MOVE 10: 70 HIST-FLAG,
MOVE 2ENO TO HIST-OUT-RANGE-VALUE,
MOVE 2ENO TO HIST-PAGE-NO,
MOVE -9999,9 TO HIST-VALUE-MAX,
MOVE (9999,9 TO HIST-VALUE-MIN,
MOVE 2ENO TO HIST-INOEX.
                                                                                                                                                                   C98970
95190
                                                                                                                                                                   C98970
95200
                                                                                                                                                                   C98970
95290
                                                                                                                                                                   C98970
97000
97080
                                                                                                                                                                   C98970
97090
97100
97140
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
97150
97200
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
                      IF HIST-TEMP TO HIST-VALUE HIST-TEMP.

IF HIST-TEMP TO HIST-VALUE-MAX THEN MOVE HIST-TEMP TO HIST-VALUE-MAX THEN MOVE HIST-TEMP TO HIST-VALUE-MAX.

IF HIST-TEMP TO HIST-VALUE-MIN THEN MOVE HIST-TEMP TO HIST-VALUE-MIN.

IF HIST-TEMP TO HIST-VALUE-MIN.

IF HIST-TEMP TO HIST-VALUE-MIN.

IF HIST-TEMP TO HIST-VALUE-MIN.

HIST-FINO-VMAX-VMIN.
97210
                HIST-FIND-VMAx-VMIN
                                                                                                                                                                   C98970
97420
97430
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
97240
                                                                                                                                                                   C98970
97250
                                                                                                                                                                   C98970
97260
                                                                                                                                                                   C98970
97270
                                                                                                                                                                   C98970
97280
                                                                                                                                                                   C98970
97290
                                                                                                                                                                   C98970
                        IF UATA-TYPE IS EQUAL TO ONE COMPUTE HIST-NO-OF-INTERVALS >
97292
                                                                                                                                                                   C98970
                        HIST-VALUE-MAX < 4.

IF UATA-TYPE IS EQUAL TO TWO COMPUTE HIST-NO-OF-INTERVALS >
HIST-VALUE-MAX / 8 < 4.
97294
                                                                                                                                                                   C98970
97296
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
               HIST-PRINT-TITLE,
IF HIST-NO-OF-INTERVALS IS LESS THAN 50 MOVE 50 TO
HIST-NO-OF-INTERVALS.
97300
                                                                                                                                                                   C98970
97301
                                                                                                                                                                   C98970
97302
                       HIST-NO-OF-INTERVALS.

ADD I TU HIST-PAGE-NO.

MOVE 5 TO HIST-LINE-CNT.

WRITE HIST-REC FROM HIST-NEW-PAGE.

MOVE HIST-NO-OF-OBS TO HIST-NO-OF-OBS-RPT.

MOVE HIST-VALUE-MAX TO HIST-VALUE-MAX-RPT.

MOVE HIST-VALUE-MIN TO HIST-VALUE-MIN-RPT.

WRITE HIST-REC FROM HIST-TITLE.

PERFORM CCMPUTE-MEAN-VARIANCE THRU END-CMV.

WRITE HIST-REC FROM HIST-LOT-LINE.

WRITE HIST-REC FROM HIST-LOT-LINE.

TOUMMY.
                                                                                                                                                                   C98970
97304
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
97310
                                                                                                                                                                   C98970
97320
                                                                                                                                                                   C98970
97330
                                                                                                                                                                   C98970
97340
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
97355
97360
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
97380
                                                                                                                                                                   C98970
97390
                                                                                                                                                                   C98970
                       IF HIST-VALUE-MAX IS LESS THAN HIST-VALUE-MIN THEN 60 TO HIST-ERROR-2.

IF HIST-NG-OF-INTERVALS IS GREATER THAN 200 THEN MOVE 200 TO HIST-NO-OF-INTERVALS.

MOVE ZERO JO HIST-INDEX.
97410
97420
97430
97440
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
              HIST-RST. ADD I TO FIST-INDEX.
97442
                                                                                                                                                                   C98970
97443
                                                                                                                                                                   C98970
                       MOVE ZEHO TO HIST-INDEX.

IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS

THEN OO TO HIST-RST.

IF DATA-TYPE IS EQUAL TO ONE MOVE 1.0 TO HIST-INTERVAL-SIZE.

NOTE COMPUTE UPPER LIMIT FOR EACH INTERVAL.

MOVE ZEHO TO HIST-INDEX.
                                                                                                                                                                   C98970
97445
                                                                                                                                                                   C98970
97446 97450
                                                                                                                                                                   C98970
                                                                                                                                                                   C98970
97460
                                                                                                                                                                   C98970
97500
                                                                                                                                                                    C98970
97510
                                                                                                                                                                   C98970
```

```
HIST-INC-INTERVAL.

ADD 1 TO HIST-INDEX.

ADD HIST-INTERVAL-SIZE TO HIST-TEMP.

MOVE HIST-TEMP TO HIST-UPPER-LIMIT (HIST-INDEX).
97530
97540
                                                                                                                                                                                                 C98970
                                                                                                                                                                                                 C98970
97550
                                                                                                                                                                                                 C98970
97560
                                                                                                                                                                                                 COASTO
97570
                             IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS THEN
                             GO TO HIST-INC-INTERVAL.
NOTE PLACE OCCURANCE INTO APPROPRIATE CHANNEL.
91580
                                                                                                                                                                                                C98910
 97600
                                                                                                                                                                                                 COMOTO
97610
                             MOVE ZLKO TO HIST-INDEX-2.
                  HIST-OCCURANCE.
97620
                                                                                                                                                                                                 CGAGTO
                             ADD I TO hIST-INDEX-2.

MOVE HIST-VALUE (HIST-INDEX-2) TO HIST-TEMP.

MOVE ZERO TO HIST-INDEX.
                                                                                                                                                                                                 C98970
97640
                                                                                                                                                                                                 C98970
97650
                                                                                                                                                                                                 C98970
                 HIST-INTERVAL.
ADD I TO HIST-INDEX.
97660
 97670
                                                                                                                                                                                                 C98970
                            MOVE FREG-HIST-VALUE (HIST-INDEX-2) TO A.

IF HIST-TEMP IS NOT GREATER THAN HIST-UPPER-LIMIT

[HIST-INDEX] THEN GO TO HIST-ADD-TABLE.

IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS THEN GO TO
97675
97680
                                                                                                                                                                                                 COASTO
97690
                                                                                                                                                                                                C98970
97700
                                                                                                                                                                                                 C989T0
                                                                                  HIST-INTERVAL .
97710
                                                                                                                                                                                                 C98970
97T20
                             ADD A TO HIST-OUT-RANGE-VALUE.
                             GO TO HIST-NO-AUD.
97730
                                                                                                                                                                                                 C08970
                  HIST-ADD-TABLE .
                                                                                                                                                                                                 C98970
                             ADD A TO HIST-TABLE CHIST-INDEX ].
97750
                                                                                                                                                                                                 C98970
                  HIST-NO-ADD.
97751
                                                                                                                                                                                                 COASTO
                            IF HIST-INDEX-2 IS LESS KNT
NOTE COMPUTE SCALE VALUE.
MOVE HIST-TABLE [1] TO HIST-TEMP.
                                                                                                                                 GO TO HIST-OCCURANCE.
97800
                                                                                                                                                                                                 CGAGTO
97810
                                                                                                                                                                                                C98970
                                                                                                                                                                                                C98970
                 MOVE 1 10 HIST-INDEX. HIST-SCALE.
97820
91830
                                                                                                                                                                                                COAGTO
97840
                             ADD I TO HIST-INDEX.
                                                                                                                                                                                                C98970
                             ADD 1 TO STATE AND STATE AND STATE AND A STATE AND A STATE AND STATE AND STATE AND A STATE
97450
                                                                                                                                                                                                 C98970
91860
                                                                                                                                                                                                 C98970
97870
                            HIST-SCALE.
COMPUTE HIST-SCALE-VALUE > EHIST-TEMP < 993 / 100.
97880
                                                                                                                                                                                                C98970
97890
                                                                                                                                                                                                C98970
                             IF HIST-SCALE-VALUE IS LESS THAN 1 MOVE 1 TO HIST-SCALE-VALUE.
97895
                                                                                                                                                                                                 C98970
97896
                                                                                                                                                                                                 CGAGTO
97900
                             MOVE ZERO TO HIST-INDEX.
                  HIST-SCALLU-VALUES.
97910
                                                                                                                                                                                                 COROZA
                            FSCALED-VALUES.

ADD I TO FIST-INDEX.

COMPUTE HIST-TABLE-SCALED (HIST-INDEX) >

HIST-TABLE (HIST-INDEX) / HIST-SCALE-VALUE.

IF HIST-INDEX IS LESS THAN HIST-NO-OF-INTERVALS THEN GO TO
                                                                                                                                                                                                C98970
9 2430
                                                                                                                                                                                                 C08970
97940
                                                                                                                                                                                                C98970
97950
                                                                                                                                                                                                 C98970
                                                                                           HIST-SCALED-VALUES.
97960
                                                                                                                                                                                                 C98970
                 NOTE PREPARE OUTPUT DATA.

DIVICE 2 INTO HIST-INTERVAL-SIZE.

MOVE ZERO TO HIST-CUM.

MOVE ZERO TO HIST-LINE.

HIST-PREPARE.
DAUTO
                                                                                                                                                                                                COBSTO
98020
                                                                                                                                                                                                C989T0
98030
                                                                                                                                                                                                C98970
981140
                                                                                                                                                                                                C98970
                            ADD 1 TO HIST-LINE.
98050
                                                                                                                                                                                                C98970
                            MOVE HIST-LINE TO HIST-LINE-RPT.
COMPUTE HIST-TEMP > HIST-UPPER-LIMIT (MIST-LINE)
98060
                                                                                                                                                                                                 C98970
98070
                                                                                                                                                                                                COBSTO
98080
                                                                                             - HIST-INTERVAL-SIZE.
                                                                                                                                                                                                C989T0
                           MOVE HIST-TEMP TO HIST-MID-POINT-RPT.

COMPUTE H:ST-PERCENT > HIST-TABLE [HIST-LINE] * 100

/ HIST-NO-OF-OBS.

MOVE HIST-PERCENT TO HIST-PERCENT-RPT.
98090
                                                                                                                                                                                                COASTO
98100
                                                                                                                                                                                                C98970
                                                                                                                                                                                                C98970
C98970
98120
                            ADD HIST-PERCENT TO HIST-CUM.
MOVE HIST-CUM TO HIST-CUM-RPT.
98130
9A140
                                                                                                                                                                                                C98970
                            MOVE HIST-TARLE [HIST-LINE] TO HIST-FREG-RPT.
                                                                                                                                                                                                C989T0
98150
                            MOVE ZEHO TO HIST-INDEX.
                                                                                                                                                                                                COROTO
98160
                            MOVE ZERO TO HIST-INDEX.
IF HIST-DIST IS NOT EQUAL TO 10: GO TO HIST-CUM-1.
COMPUTE HIST-INDEX-2 > HIST-TABLE-SCALED (HIST-LINE) < 0.8.
IF HIST-INDEX-2 IS EQUAL TO ZERO GO TO HIST-PREP-SPACE.
98170
                                                                                                                                                                                                C98970
98190
                                                                                                                                                                                                COROTA
                 HIST-INDEX-2 IS EQUAL TO ZERO BO TO HIST-PREP-SPACE.

HIST-PREP-DIST.

ADD I TO HIST-INDEX.

MOVE :: TO HIST-POINT CHIST-INDEX].

IF HIST-INDEX IS LESS THAN HIST-INDEX-2 GO TO HIST-PREP-DIST.

IF HIST-INDEX IS EQUAL TO 100 THEN GO TO HIST-WRITE.

HIST-PREP-SPACE.
98200
                                                                                                                                                                                                C98970
                                                                                                                                                                                                C98970
98220
                                                                                                                                                                                                C98970
98230
                                                                                                                                                                                                C98970
98240
98250
                            ADD I TO HIST-INDEX
                                                                                                                                                                                                C98970
98260
                            MOVE SPACE TO HIST-POINT EHIST-INDEX ;
IF HIST-IT DEX IS LESS THAN 100 THEN 80 TO HIST-PREP-SPACE.
                                                                                                                                                                                                C98970
98270
                                                                                                                                                                                                C98970
                GO TO HIST-WHITE.

HIST-CUM-I.

ADD I TO HIST-INDEX.

MOVE SPACE TO HIST-POINT EHIST-INDEX].

IF HIST-INDEX IS LESS THAN IOD THEN GO TO HIST-CUM-1.

COMPUTE HIST-INDEX > HIST-CUM C 0.5.

IF HIST-INDEX IS EQUAL TO ZENO GO TO HIST-WRITE.

MOVE :: TO HIST-POINT (HIST-INDEX).
                                                                                                                                                                                                 COBSTO
90290
                            GO TO HIST-WHITE.
                                                                                                                                                                                                 C98970
98310
                                                                                                                                                                                                C989T0
98320
98330
                                                                                                                                                                                                 C989T0
98335
                                                                                                                                                                                                 C98970
98340
                                                                                                                                                                                                 C98970
                                                                                                                                                                                                 C98970
98400
                           WRITE HIST-REC FROM HIST-LINE-OUT.
ADD I TO HIST-LINE-CNT.
IF HIST-PAGE-FLAG IS EQUAL TO ZERO GO TO HIST-NO-PAGING.
IF HIST-LINE-CNT IS EQUAL TO HIST-PAGE-FLAG
                                                                                                                                                                                                 CGRG70
                                                                                                                                                                                                 C98970
98412
                                                                                                                                                                                                 C989T0
98415
```

TO HIST-TEMP.

91520

MOVE ZEHO

```
THEN PERFORM HIST-PRINT-TITLE.
  98416
                                                                                                                                                                                                                                                                                         C98970
  98417
98420
                            HIST-NO-PAGING
                                                                                                                                                                                                                                                                                         C98970
                                           F-NO-PAGING,

IF HIST-LINE IS LESS THAN HIST-NO-OF-INTERVALS THEN 60 TO

HIST-PREPARE.

WHITE HIST-REC FROM HIST-DOT-LINE.

MOVE HIST-SCALE-VALUE TO HIST-SCALE-RPT.

WRITE HIST-REC FROM HIST-SCALE-LINE.

IF HIST-OUT-RANGE-VALUE IS EQUAL TO ZERO 60 TO HIST-WRITE-B.

MOVE HIST-OUT-RANGE-VALUE TO HIST-OUT-RANGE-RPT.
                                                                                                                                                                                                                                                                                         C98970
   98430
                                                                                                                                                                                                                                                                                         C98970
  98440
                                                                                                                                                                                                                                                                                         C98970
C98970
   98460
  98470
                                                                                                                                                                                                                                                                                         C98970
   98480
                                                                                                                                                                                                                                                                                         C98970
  98490
98500
                            WRITE HIST-REC FROM HIST-OUT-RANGE-REC. HIST-WRITE-U.
                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                         C98970
                                           WRITE HIST REC FROM HIST-DOT-LINE. GO TO END-HIST.
   98510
                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                         C98970
C98970
99020 GO TO END-HIST.

99010 WRITE HIST-REC FROM HIST-TITLE.

99020 MOVE HIST-CRR-1 TO HIST-TITLE-1.

99030 MOVE HIST-CRR-EC FROM HIST-TITLE-1.

99040 MOVE HIST-CRR-EC FROM HIST-TITLE.

99050 MOVE :1: TO HIST-FLAG.

99100 HIST-ERROH-2.

99110 MOVE HIST-ERR-4 TO HIST-TITLE-1.

MOVE HIST-ERROH TO HIST-TITLE-1.

MOVE HIST-ERROH TO HIST-TITLE-1.

99120 MOVE HIST-ERR-5 TO HIST-TITLE-2.

99140 MOVE HIST-ERR-5 TO HIST-TITLE.

99150 GO TO END-HIST.

99140 MOVE 11: TO HIST-FLAG.

99150 HIST-ERR-3.

99210 HOVE 11: TO HIST-FLAG.

99210 HOVE 11: TO HIST-FLAG.

99210 FND-HIST.

99210 MOVE 11: TO HIST-FLAG.

99210 HIST-ERR-3.

99210 HIST-ERR-3.

99210 HIST-ERR-3.

99210 HIST-ERR-3.

99210 HOVE 11: TO HIST-FLAG.

99150 SO TO END-HIST.

99210 HIST-ERROH TO HIST-FLAG.

99210 HOVE 11: TO HIST-FLAG.

99210 HOVE 11: TO HIST-FLAG.

99210 HOVE 11: TO HIST-FLAG.

99210 HIST-ERROH TO HIST-FLAG.

99210 HOVE HIST-ERROH TO HIST-FLAG.

99210 HOVE HIST-ERROH TO HIST-TITLE-1.
  98520
                            HIST-ERHOR-1.
   99000
                                                                                                                                                                                                                                                                                          C98970
                                                                                                                                                                                                                                                                                          COROTO
                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                         C98970
C98970
                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                         C98970
C98970
                                                                                                                                                                                                                                                                                         C98970
C98970
                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                                                  1440 CDS
```

```
PLACE TFG DATA BEFORE THIS CARD

/* PLACE TFG DATA BEFORE THIS CARD

//TPR.TUI2 DD DISP>COLD.KEEP].VOL>SER>+F1.UNIT>T+F1

//TPR.TU24 DD DISP>COLD.KEEP].VOL>SER>+F7.UNIT>T+F7

//TPR.TPRIN DD *,SPACE>(TRK,[1:1])

T/P TU12 1010020Z020

T/P TU24 1100130R000

/* PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

6.12 AIRCRAFT INSPECTION HISTORIES

```
//C9897E JOB
//C9897E LXEC
                        01.1 G WANG
                                                  1.PRTY>02.TYPRUN>HOLD
                        T12
//CHG. TU22
                                                                                                                    CT22
                                                                                                                    CT22
//CHG. INPUT
                                                                                                                      1440 CDS
00000
                                                                                                                         C98970
01000 IDENTIFICATION DIV
           IDENTIFICATION DIVISION.
                                                                                                                         COAGTO
          AUTHOR. A. J. BOWKEN
INSTALLATION. GENERAL DYNAMICS/CONVAIR.
DAIL-WRITTEN. 5 MAY 72.
01020
                                                                                                                         C98970
                                                                                                                         C98970
01030
01040
           REMARKS.
                                                                                                                         C98970
           PLUT FOR SIX WUC V FLT-MRS. ENVIRONMENT DIVISION.
01460
                                                                                                                         C98970
02000
                                                                                                                         C98970
           CONFIGURATION SECTION.
SOUNCE-COMPUTER. IBM-360.
OBJECT-LOMPUTER. IBM-360.
02010
                                                                                                                         C98970
02020
02030
                                                                                                                         C98970
U2100
           INPUT-OUTPUT SECTION.
                                                                                                                         C98970
           FILE-CONTROL .
                 RESERVE 1 ALTERNATE AREA.

SELECT PLOT-FILE
RESERVE 4 ALTERNATE AREA.
02110
                                                                                                                         C98970
02120
02130
                                                                                                                         C98970
                                                                                                                         C98970
                 RESERVE 1 ALTERNATE AREA.
SELECT HEPOHT-FILE
RESERVE 1 ALTERNATE AREA.
U2150
U2160
                                                                                                                         C98970
                                                                  ASSIGN TO UT-S-TU22
                                                                                                                         C98970
02170
                                                                                                                         C98970
         DATA DIVISION.
10000
                                                                                                                         C98970
          FILE SELTION.
11100
                                                                                                                         C98970
11110
                                                                                                                         C98970
                  RECURULING MODE IS F
BLOLK CONTAINS 40 RECORDS
11120
                                                                                                                          C98970
11130
                                                                                                                         C98970
                 BLUER CONTAINS TO RECORD CONTAINS TO LABEL NECORDS ARE OMITTED DATA RELONDS ARE DATA-REC. DATA-REC. DZ FILLER
                                                                 CHARACTERS
11150
                                                                                                                         C98970
11160
                                                                                                                         C98970
12200
          01
                                                                                                                         C98970
12210
                                                                PICTURE XCSJ.
                                                               PICTURE X(8).
PICTURE 999.
PICTURE X(5).
12220
                  U2 SEHIAL-NO
                                                                                                                          C98970
                       WEEK
12230
                  02
                                                                                                                         C98970
12240
                  02
                       1-UC
                        FILLER MEDEFINES WUC.

03 WUC-1

93 FILLER

PICTURE X
12250
                  Q2
                                                                                                                         C98970
                                                                                                                         C 98970
                                                               PICTURE X(4).
PICTURE X(27).
PICTURE X.
PICTURE X(4).
PICTURE X(4).
PICTURE X(4).
PICTURE X(11).
12270
                                                                                                                         C98970
                 02 FILLER
12280
                                                                                                                         C98970
                  02 TUENT
12290
                                                                                                                         C98970
                  02 FILLER
02 FLT-HRS
                                                                                                                         C98970
12300
12310
12520
                       FILLER
                                                                                                                          C98970
           FO PLOT-FILL
21100
                                                                                                                         C98970
21110
                 RECOPULING MODE IS F
BLOCK CUNTAINS 20 RECORDS
21120
                                                                                                                         C98970
21130
                 RECURD CONTAINS 80 CH
LABEL HECORDS ARE OMITTED
DATA HECORDS ARE PLOT-FILE-REC.
PLOT-FILE-REC SYNC.
21140
                                                                 CHARACTERS
                                                                                                                         C08070
21150
                                                                                                                         C98970
21170
           01
                                                                                                                         C98970
                  02 FILLER
21180
                                                               PICTURE XE 80 1.
22100
           FO
                 REPORT-FILE
                                                                                                                         C98970
                  RECURUING MODE IS F
BLOCK CONTAINS IS RECORDS
22120
                                                                                                                          C98970
22130
                                                                                                                         C98970
                 RECOMD LONT. INS 130
LABEL PLOOPIS ARE OMITTED
DATA RECORDS ARE PLOT-HEC.
                                                                 CHARACTERS
22150
                                                                                                                          C98970
                                                                                                                         C98970
22160
                 PLOT-REL STIC.
22170
                                                                                                                         C98970
22180
                                                               PICTURE ME 1303.
                                                                                                                          C98970
30000
           WORK ING-STUNAGE SECTION.
                 KING-STUHAGE SECTION.

LINE-LNI SYNC PICTURE 9(4) VALUE ZERO.

TOTAL-LINE-LNT SYNC PICTURE 967 VALUE ZERO.

TOTAL-LINE-NT SYNC PICTURE 969 VALUE ZERO.

TARLE-PUS COMPUTATIONAL PICTURE S999 VALUE ZERO SYNC.

TOTAL-LINE COMPUTATIONAL PICTURE S999 VALUE ZERO SYNC.

LINE-PUS COMPUTATIONAL PICTURE S999 VALUE ZERO SYNC.

LINE-PUS COMPUTATIONAL PICTURE S9999999 SYNC.

DEP-INTERVAL COMPUTATIONAL PICTURE S9999999 SYNC.

PLOT-FLAO PICTURE S9999999 SYNC.

PICTURE X VALUE SPACE SYNC.
                                                                                                                         C98970
30010
                                                                                                                          C98970
30020
                                                                                                                         C98970
30030
                                                                                                                         C98970
30040
                                                                                                                         C98970
30050
30116.0
                                                                                                                          CONOTA
30070
                                                                                                                         C98970
           77
77
77
77
                                                                                                                         C98970
SOUAD
30100
30110
                                                                                                                         C98970
```

```
MONE
COMPUTATIONAL
PICTURE S99 VALUE -1 SYNC.
CNT
COMPUTATIONAL
PICTURE S999 VALUE ZERO SYNC.
COMPUTATIONAL
PICTURE S999 VALUE ZERO SYNC.
DEP-1
COMPUTATIONAL
PICTURE S953 JV9 SYNC.
DEP-2
COMPUTATIONAL
PICTURE S953 JV9 SYNC.
DEP-3
COMPUTATIONAL
PICTURE S953 JV9 SYNC.
DEP-4
COMPUTATIONAL
PICTURE S953 JV9 SYNC.
COMPUTATIONAL
PICTURE S999 SYNC.
CNTA
COMPUTATIONAL
PICTURE S999 SYNC.
TEMP
COMPUTATIONAL
PICTURE S999 SYNC.
TEMP
COMPUTATIONAL
PICTURE S999 SYNC.
TEMP
COMPUTATIONAL
PICTURE S999 SYNC.
PICTURE S999 SYNC.
TEMP
COMPUTATIONAL
PICTURE S999 SYNC.
PICTURE S999 VALUE ZERO.
PICTURE S999 VALUE ZERO.
PICTURE XC403 VALUE SPACE.
                                                                                                                                             C98970
30120 77
                                                                                                                                              C98970
                                                                                                                                              C98970
30140
30150
                                                                                                                                              C98970
30160
30170
             77
77
                                                                                                                                              C98970
 30180
             77
                                                                                                                                              C98970
                                                                                                                                              C98970
30190
                                                                                                                                              C98970
                                                                                                                                             C98970
30210
             77
30220
 30230_
                                                                                                                                             C98970
                                                                                                                                             C98970
30240
                                                                                                                                             C98970
                                                                                                                                             C98970
31000
             01
                     02 FILLER
02 DEPENDENT-TITLE
02 FILLER
                                                                          PICTURE XE403 VALUE SPACE.
 31010
                                                                          PICTURE XC803.
PICTURE XC103 VALUE 1
31020
                                                                                                                                              C98970
                                                                                                                                             C98970
31030
                             INDEPEND-TITLE SYNC.
             01
                                                                                                                                              C98970
                            IND-BLOCK
FILLER REDEFINES IND-BLOCK.
PICTURE X OCCURS 80 TIMES.
                            IND-BLOCK
                                                                           PICTURE XC803.
                                                                                                                                             C98970
31110
31120
31130
                     03 IND WUC-LIST SYJC.
                                                                                                                                             C98970
             01
31200
                                                                          PICTURE 9.
PICTURE XC83.
                     02
02
02
31210
                            NO-UF-W JC
                                                                                                                                              C08970
                            FILLER
                                                                                                                                             C98970
                    02 FILLER PICTURE XC03.
02 WUC-LIST-1 OCCURS 6 TIMES.
03 FILLER PICTURE XC53.
03 FILLER PICTURE XC53.
02 WUC-LIST-2 OCCURS 6 TIMES.
03 MUC-SYMBOL PICTURE X.
02 FILLER PICTURE XC53.
03 TAB. OCCURS 200 TIMES.
03 TAB. OCCURS 7 TIMES PICTURE S9C53V9 COMPUTATIONAL.
PLOT-TITLE SYNC.
02 FILLER PICTURE XC223 VALUE
31220
                                                                                                                                             C98970
31240
 31250
                                                                                                                                              C98970
31260
31270
31280
31300
                                                                                                                                              C98970
             01
                                                                                                                                              C08070
                                                                                                                                              C98970
31320
 31400
                                                                                                                                              C98970
                                                                          PICTURE X[22] VALUE
31410
31420
                     02 FILLER
                                                AIRCRAFT NUMBER 1: AIRCRAFT NUMBER 1: AIRCRAFT NUMBER 1: AIRCRAFT NUMBER 1: AIRCRAFT NALUE SPACE.

PICTURE X[4] VALUE SPACE.

PICTURE X[4] VALUE IPAGE:
                                                                                                                                              C98970
                                                                                                                                              C98970
                     02 CUR-S-N
02 FILLER
02 FILLER
31430
31440
                                                                                                                                              C98970
31450
                                                                                                                                              C98970
31460
                     02
                            PAGE-NG-RPT
                                                                         PICTURE Z9.
PICTURE X VALUE 1#1.
                                                                                                                                              C98970
                            FILLER
                                                                                                                                              C98970
31470
                     WUC-DATA SYNC.
31500
             01
                                                                          PICTURE X[10] VALUE SPACE, PICTURE X[119] VALUE SPACE, PICTURE X VALUE :::
                     02 FILLER
02 FILLER
02 FILLER
31510
                                                                                                                                              C98970
                                                                                                                                              C98970
31520
                                                                                                                                              C98970
                    DEP-AXIS SYNC.
02 FILLER
02 DEP-MIN-RP
             01
31600
                                                                                                                                              C98970
                                                                           PICTURE X[15] VALUE SPACE.
                                                                                                                                              C98970
                                                                         PICTURE X[15] VALUE SPACE.
PICTURE X2229.
PICTURE X[15] VALUE SPACE.
PICTURE X2229.
PICTURE X2229.
PICTURE X[15] VALUE SPACE.
PICTURE X[15] VALUE SPACE.
PICTURE X[15] VALUE SPACE.
PICTURE X[15] VALUE SPACE.
PICTURE X[2229.
PICTURE X[20] VALUE SPACE.
PICTURE X[20] VALUE SPACE.
31610
 31620
                            DEP-MIN-RPT
                                                                                                                                              C98970
                            FILLER
31630
                     02
                                                                                                                                              C98970
                            DEP-1-RPT
                                                                                                                                              C98970
31640
                     02
 31650
                                                                                                                                              C98970
                            DEP-2-RPT
FILLER
31660
31670
                      02
                                                                                                                                              C98970
                            DEP-3-RPT
                     02
 31680
                                                                                                                                              C98970
                                                                                                                                              C98970
31690
31700
                            FILLER
                     02
                            DEP-4-RPT
31710
31720
31730
                                                                                                                                              C98970
                     02
                           FILLER
DEP-MAX-RPT
FILLER
1 #1.
-LINE SYNC.
FILLER
                            FILLER
                                                                                                                                              C98970
                     02
                                                                       PICTURE XL 103 VALUE
                                                                                                                                              C98970
                                                                                                                                              C98970
31740
                     DEP-LINE SYNC.
             01
 31800
                    DEP-LINE 3....
 31610
                                                                          PICTURE XCSO) VALUE
                                                                                                                                              C98970
                                                                                                                                              C98970
                                                                                                          ----
31820
                                                                           PICTURE XC503 VALUE
                     02 FILLER
                                                                                                                                              C98970
                                                                    1------
                                                                                                                                             C98970
31840
                     02 FILLER
                                                                           PICTURE XC 301 VALUE
31850
31860
                                                                                                                                              C98970
                    PLOT-LINE SYNC.
             01
                                                                                                                                              C98970
 31900
                    02 FILLER
02 IND-OUY
02 FILLER
02 WEEK-RP
 31910
                                                                          PICTURE XEBJ VALUE SPACE.
                                                                                                                                              C98970
                                                                          PICTURE X.
PICTURE X[5] VALUE SPACE.
                                                                                                                                              C98970
31920
31930
                                                                                                                                              C98970
                     02 MEK-RPT PICTURE 229.
02 FILLER PICTURE XXX VALUE : 1:.
02 OUTPUT-LINE OCCURS 100 TIMES
 31940
                                                                                                                                              C98970
31950
                                                                                                                                              C98970
 31960
                                                                          PICTURE X.
PICTURE XC103 VALUE
31970
                                                                                                                                              C98970
                                                                                                                                              C98970
31980
                     02 FILLER
                     WUC-TITLE-LINE SYNC.

02 FILLER

02 FILLER OCCURS 6 TIMES.
                                                                                                                                              C98970
32000
             01
                                                                           PICTURE XCIOJ VALUE SPACE.
                                                                                                                                              C98970
 32410
 32020
                                                                                                                                              C98970
                    03 SYMB
03 EQU'
03 WUCT
03 BLANK-SPACE
02 FILLER
                                                                           PICTURE X
32030
                                                                                                                                              C98970
                                                                          PICTURE XXX.
PICTURE XCSJ.
PICTURE X.
PICTURE X.
PICTURE XCS93 VALUE SPACE.
 32040
 32050
                                                                                                                                              C98970
 32060
                                                                                                                                              C98970
                                                                                                                                              C98970
 32070
32080
                                                                                                                                              C98970
```

```
33000 01 REPORT-ID SYNC.
                                                                                                                                            C98970
                     02 FILLER
                                                                         PICTURE XESO 3 VALUE
 33010
                                                                                                                                            C98970
                     159897C60 TF7919-01 142-8 1 1/2
02 FILLER PICTURE XC50 VALUE SPACE,
02 FILLER PICTURE XC50 VALUE
 33020
33030
                                                                                                                                            C98970
                                                                                                                                            C98970
  33040
                                                                                                                                            C98970
  33050
                                                                                                                                            C98970
              PROCEDURE DIVISION.
  50000
                     OPEN INPUT DATA-FILE, PLOT-FILE, OUTPUT
  50010
                                                                                                                                            C98970
                                                                                                REPORT-FILE.
 50020
                                                                                                                                            C98970
                     MOVE 200 TO NO-OF-WEEKS.
PERFORM READ-PLOT-DATA THRU END-PR.
ADD NO-OF-WUC, 1 GIVING NO-OF-COLS.
WRITE PLOT-REC FROM REPORT-ID.
  50040
                                                                                                                                            C98970
 50050
 50060
                                                                                                                                            C98970
 50070
                                                                                                                                            C98970
 50100
             READ-DATA-FILE.
                                                                                                                                           C98970
                     READ DATA-FILE.

AT END GO TO CLOSE-FILES.

IF IDENT IS NOT EQUAL TO 131 GO TO READ-DATA-FILE.

IF WUC-1 IS NOT EQUAL TO 101 GO TO READ-DATA-FILE.

MOVE ZERO TO WUC-NO.
 50110
                                                                                                                                           C98970
 50120
                                                                                                                                            C98970
 50130
                                                                                                                                            C98970
 50140
  50200
                                                                                                                                            C98970
 50210
             VALIDATE-WUC.
                                                                                                                                           C98970
                     ADD 1 TO WUC-NO
 50220
                                                                                                                                            C98970
                     IF WUC IS EQUAL TO WUC-7AB [WUC-NO] GO TO CHECK-S-N.
IF WUC-NO IS LESS THAN NO-OF-WUC, GO TO VALIDATE-WUC.
GO TO READ-DATA-FILE.
  50230
                                                                                                                                            C98970
 50240
 50250
                                                                                                                                            C98970
 50300
             CHECK-S-N.
                                                                                                                                            C98970
                     IF SETIAL-NO IS EQUAL TO CUR-S-N 80 TO ADD-DATA.
IF CUR-S-N IS EQUAL TO SPACE 80 TO FIRST-S-N.
PERFORM PLOT-DATA THRU END-PD.
 50310
                                                                                                                                            C98970
 50320
                                                                                                                                            C98970
 50330
 50340
              FIRST-S-N.
                                                                                                                                            COAGTO
 50350
50360
                     MOVE SERIAL-NO TO CUR-S-N. MOVE ZERO "O CNT.
                                                                                                                                            C98970
                                                                                                                                            C98970
             ZERO-TABLE-I.

ADD I TO CNT.

MOVE ZERO 10 CNTA.
 50370
                                                                                                                                            C98970
 50380
 50390
             MOVE ZERO TO CNTA.

ZERO-TABLE-2.

ADD 1 TO CNTA.

MOVE MONE TO TABL ICNT, CNTA).

IF CNTA IS LESS THAN 7 60 TO ZERO-TABLE-2.

IF CNT IS LESS THAN NO-OF-WEEKS, 60 TO ZERO-TABLE-1.

MOVE WEEK TO CUR-WEEK.

MOVE I TO TABLE-POS.

MOVE 1 TO NO-OF-WEEKS.

MOVE WEEK TO TABL II. 7], GO TO ADD-LINE.
                                                                                                                                            C98970
 50400
                                                                                                                                            C98970
 50410
                                                                                                                                           COROTO
 50420
                                                                                                                                            C98970
                                                                                                                                            C98970
                                                                                                                                           C98970
 50450
50460
                                                                                                                                           C98970
 50465
                                                                                                                                           C98970
 50470
                                                                                                                                            C98970
 50500
                                                                                                                                           C98970
50510
50520
                     IF WEEK IS EQUAL TO CUR-WEEK GO TO ADD-LINE.
             ADD-DATA-1.

ADD I TO TABLE-POS.

ADD I TO CUR-WEEK.

ADD I TO NO-OF-WEEKS.

MOVE CUR-WEEK TO TABL [TABLE-POS, 7].

GO TO ADD-DATA.
                                                                                                                                           C98970
50530
50540
                                                                                                                                           C98970
 50545
                                                                                                                                           C98970
50550
50560
                                                                                                                                           C98970
 50700
             ADD-LINE.
                                                                                                                                           C98970
                    MOVE FLI-HPS TO TABL [TABLE-POS, WUC-NO], GO TO READ-DATA-FILE.
50710
50720
                                                                                                                                           C98970
             READ-PLOT-FILE INTO DEPENDENT-TITLE, AT END GO TO END-PR.
READ PLOT-FILE INTO DEPENDENT-TITLE, AT END GO TO END-PR.
READ PLOT-FILE INTO MUC-LIST,
PERFORM PREP-TITLES THRU END-P7.
50800
                                                                                                                                           C98970
50810
                                                                                                                                           C98970
50820
                                                                                                                                           C98970
50830
                                                                                                                                           C98970
                                                                                                                                           C98970
             END-PR. EXIT.
PLOT-DATA.
50890
51000
                                                                                                                                           COROTO
                    MOVE ZERO TO PAGE-NO.
MOVE C9995 TO MIN-DEP-VALUE.
MOVE ZERO TO CNT.
51010
51020
                                                                                                                                           COROTO
51030
                                                                                                                                           C98970
            FIND-MIN.

ADD 1 TO CHT.

IF TABL (I, CHT) IS EQUAL TO MONE 80 TO F-M-A.

IF TABL (I, CHT) IS LESS THAN MIN-DEP-VALUE, MOVE
TABL (I, CHT) TO MIN-DEP-VALUE.
51040
                                                                                                                                           C98970
 51050
                                                                                                                                           C98970
51055
51060
                                                                                                                                           C98970
51070
                                                                                                                                           C98970
            F-M-A.

IF CNT 15 1ESS THAN NO-OF-COLS 80 TO FIND-MIN.

MOVE ZERO TO MAX-DEP-VALUE.

MOVE ZERO TO CNT.
51075
                                                                                                                                           C98970
51080
                                                                                                                                           C98970
51110
                                                                                                                                           C98970
51120
                    )=MAX.

ADD 1 TO CNT.

IF TABL I NO-OF-WEEKS, CNT ] IS GREATER THAN MAX-DEP-VALUE,

MOVE TABL I NO-OF-WEEKS, CNT ] TO MAX-DEP-VALUE.

IF CNT IS LESS THAN NO-OF-COLS GO TO FIND-MAX.

MOVE MIN-DEP-VALUE TO TEMP,

COMPUTE TEMP > TEMP / 100 + 100.

MOVE MAX-DEP-VALUE TO TEMP.

COMPUTE TEMP > CTEMP < 100 ] / 100 + 100.
                                                                                                                                           C98970
51130
                                                                                                                                           C98970
51140
                                                                                                                                           C98970
 51160
                                                                                                                                           C98970
51200
                                                                                                                                           C98970
51205
                                                                                                                                           C98970
51206
                                                                                                                                           C98970
 51210
                                                                                                                                            C98970
                     COMPUTE TEMP > [TEMP < 100] / 100 + 100.

MOVE TEMP TO MAX-DEP-VALUE.

COMPUTE DEP-INTERVAL > [MAX-DEP-VALUE - MIN-DEP-VALUE]
51215
51216
                                                                                                                                           C98970
```

```
C98970
51230
                                                                                                                                      100.
                      COMPUTE DEP-1 > MIN-DEP-VALUE < CDEP-INTERVAL + 203.
COMPUTE DEP-2 > MIN-DEP-VALUE < CDEP-INTERVAL + 403.
COMPUTE DEP-3 > MIN-DEP-VALUE < CDEP-INTERVAL + 603.
COMPUTE DEP-4 > MIN-DEP-VALUE < CDEP-INTERVAL + 603.
MOVL MIN-DEP-VALUE TO DEP-MIN-RPT.
                                                                                                                                                    C98970
51250
                                                                                                                                                    C98970
51260
51270
51300
                                                                                                                                                    C98970
                                                                                                                                                    C98970
                                                                                                                                                    C98970
                     MOVE DEP-1 TO DEP-1-RPT.

MOVE DEP-2 TO DEP-2-RPT.

MOVE DEP-3 TO DEP-3-RPT.

MOVE DEP-4 TO DEP-4-RPT.

MOVE MAX-CEP-VALUE TO DEP-MAX-RPT.
51310
51320
                                                                                                                                                    C98970
                                                                                                                                                    C98970
51330
                                                                                                                                                   C98970
51340
51350
                                                                                                                                                    C98970
             MOVE MAX-CEP-VALUE TO DEP-MAX-RPT.

WRITE-PLOT-TITLE.

ADD 1 TO PAGE-NO.

MOVE PAGE-NO TO PAGE-NO-RPT.

WRITE PLOT-REC FROM PLOT-TITLE.

WRITE PLOT-REC FROM DEP-TITLE.

WRITE PLOT-REC FROM DEP-AXIS.

WRITE PLOT-REC FROM DEP-LINE.

MOVE 5 TO LINE-CNT.

ADD 5 TO TOTAL-LINE-CNT.

MOVE ZENO TO IND-CNT.

END-WPT.
                                                                                                                                                    C98970
51400
                                                                                                                                                    C98970
51410
51420
                                                                                                                                                    C98970
                                                                                                                                                    C98970
51430
                                                                                                                                                    C98970
51440
                                                                                                                                                    C98970
51450
                                                                                                                                                    C98970
51460
                                                                                                                                                    C98970
51470
                                                                                                                                                    C98970
51472
                                                                                                                                                    C98970
51474
                                                                                                                                                    C98970
51476
                                                                                                                                                    C98970
             END-WPT. MOVE ZERO TO TABLE-POS.
51480
                                                                                                                                                    C98970
51490
                                                                                                                                                    C98970
51500
             CLEAR-OUTPUT-LLOCK.
MOVE ZEHO TO CNT.
                                                                                                                                                    C98970
51510
                                                                                                                                                    C98970
51520
              COB.
                                                                                                                                                    C98970
                     ADD 1 TO CNT.

MOVE SPACE TO OUTPUT-LINE [CNT].

IF CNT IS LESS THAN 100 GO TO COB.

ADD 1 TO TABLE-POS.

MOVE TABLE LTABLE-POS, 7] TO WEEK-RPT.

ADD 1 TO .ND-CNT, MOVE IND [IND-CNT] TO IND-CNT.

IF IND-CNT IS GREATER THAN 79 MOVE ZERO TO IND-CNT.

MOVE ZERO TO CNT.
51530
                                                                                                                                                    C98970
51540
                                                                                                                                                    C98970
51550
51600
                                                                                                                                                    C98970
51610
                                                                                                                                                    C98970
51620
                                                                                                                                                    C98970
 51622
                                                                                                                                                    C98970
             MOVE ZERO 10

PREP-PLOT.

ADD 1 TO :NT.

MOVE TABLE [TABLE-POS, CNT] TO TEMP-LOC.

IS NOT EQUAL TO MONE GO TO FILL-LN.
51630
                                                                                                                                                    C98970
51640
                                                                                                                                                    C98970
51650
                                                                                                                                                    C98970
51660
                                                                                                                                                    COASTO
                      IF TEMP-LOC IS NOT EQUAL TO MONE (
IF CNT IS LESS THAN NO-OF-WUC GO TO PREP-PLOT.
GO TO WRITE-LINE.
51670
                                                                                                                                                   C98970
51680
                                                                                                                                                    C98970
51690
                                                                                                                                                    C98970
             FILL-IN.

MOVE ZERO TO LINE-POS.

MOVE MIN-DEP-VALUE TO TEMP-VALUE,

FIND-LINE-POS.
51700
51740
                                                                                                                                                    098970
51750
51800
                                                                                                                                                    C98970
                     ADD 1 TO LINE-POS.

ADD DEP-INTERVAL TO TEMP-VALUE.

IF TEMP-LOC NOT GREATER THAN TEMP-VALUE 60 TO FILL-SPACE.
61810
                                                                                                                                                    C98970
51820
                                                                                                                                                    C98970
51830
                                                                                                                                                   C98970
                      IF LINE-POS IS LESS THAN 100 GO TO FIND-LINE-POS.
NOTE THRU HERE IS AN ERROR.
DISPLAY: ERROR FIND-LINE-POS : TEMP-LOC UPON CONSOLE.
51840
                                                                                                                                                    C98970
51850
                                                                                                                                                    C98970
 31860
                                                                                                                                                    C98970
                       GO TO CFILES.
                                                                                                                                                    C98970
             FILL-SPACE.

IF OUTPUT-LINE (LINE-POS) IS NOT EQUAL TO SPACE MOVE 1+1 TO OUTPUT-LINE (LINE-POS), GO TO WRITE-LINE.

MOVE WUC-SYMBOL (CNT) TO OUTPUT-LINE (LINE-POS),
GO TO PREP-PLOT.
51900
                                                                                                                                                    C98970
51904
                                                                                                                                                    C98970
51905
51910
                                                                                                                                                    C98970
                                                                                                                                                    C98970
C98970
52000
              WRITE-LINE.
                                                                                                                                                    C98970
                      TF LINE-CIT IS GREATER THAN NO-LINE, WRITE PLOT-REC FROM DEP-LINE ADD 1 TO TOTAL-LINE-CNT, PERFORM WRITE-PLOT-TITLE, WRITE PLOT-REC FROM PLOT-LINE.
52010
                                                                                                                                                    C98970
52015
52030
                                                                                                                                                    C98970
52040
                      ADD 1 TO LINE-CHT.
ADD 1 TO "OTAL-LINE-CHT.
52050
                                                                                                                                                    C98970
52060
                      IF TABLE-POS IS LESS THAN NO-OF-WEEKS GO TO
                                                                                                                                                    C98970
52070
                                                                                     CLEAR-OUTPUT-BLOCK.
                                                                                                                                                    C98970
             END-PD, EXIT.
CLOSE-FILES.
PERFORM PLOT-DATA THRU ENC-PD.
52090
                                                                                                                                                    C98970
60000
                                                                                                                                                    C98970
60010
                                                                                                                                                    C98970
60100
                                                                                                                                                    C98970
                     ES.
DISPLAY: TOTAL LINE COUNT > I TOTAL-LINE-CNT UPON CONSOLE.
CLOSE DATA-FILE, PLOT-FILE, REPORT-FILE WITH LOCK.
DISPLAY: END OF JOB 9897: UPON CONSOLE.
60110
                                                                                                                                                    C98970
60170
                                                                                                                                                    C98970
60180
                                                                                                                                                   C98970
60190
                      GOBACK.
             PREP-TITLES.
MOVE ZERO TO CNT.
61100
                                                                                                                                                    C98970
```

```
61120 PTA,
61130 ADD 1 TO :NT,
61140 MOVE WUC-SYMBOL [CNT] TO SYMB [CNT],
61140 MOVE WUC-SYMBOL [CNT] TO WUCT [CNT],
61150 MOVE WUC-TAB [CNT] TO WUCT [CNT],
61160 MOVE SPACE TO BLANK-SPACE [CNT],
61170 MOVE SPACE TO BLANK-SPACE [CNT],
61180 IF CNT IS LESS THAN 6 GO TO PTA,
61210 PTB,
61210 PTB,
61220 ADD 1 TO CNT,
61220 ADD 1 TO CNT,
61220 MOVE: > : TO EQU [CNT],
61240 IF CNT IS LESS THAN NO-OF-WUC GO TO PTB,
61240 IF CNT IS LESS THAN NO-OF-WUC GO TO PTB,
61240 IF CNT IS LESS THAN NO-OF-WUC GO TO PTB,
61240 PACE COBOL SOURCE BEFORE THIS CARD
7/CMG.TFGIN DD *.SPACE>[CYL,[1:1]] 1440 CDS
TFG TU14 11 020:080

***EEKS,
5 03300 0J310 03320 03330 03400 12345

**END
7***PLACE TFG DATA BEFORE THIS CARD
7/TPR.TU12 DD UISPPIOLD.KEEP].VOL>SER>+FI,UNIT>T+FI
7/TPR.TU12 DO DISPPIOLD.KEEP].VOL>SER>+FI,UNIT>T+FI
7/TPR.TU12 10100702070
T/P TU12 10100702070
T/P TU14 10100802080
T/P TU22 1998130900

7***PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

6.13 EFFECTIVENESS MODEL

```
//T9897X JUH
                                                                                                 X340A
//L9897X EXEC
                                                                                                                       c
//ASSY.SYSIN
                                                                                                                         1440 CDS
                                                                          cccccccc
                                                                                                                                 210
                                                                                                                                 220
                               AN JABLES ARE REGULARD INFO?

BU CHARACTER DESCRIPTOR

THE 1TH VALUE OF THE BASIC INSPECTION INTERVAL ENGTH
NUMBER UP VALUES OF DELI

SET FOUAL TO 1:2-5.4 FOR DELI IN WEEKS-FLIGHT HOURS,
SUP)IES-AND LANDINGS, RESPECTIVELY
         HE ALI
CCC
          DELICIT
                                                                                                                                 240
                                                                                                                                  250
          k I
                                                                                                                                 260
                                                                                                                                 270
                                THE NUMBER OF MAJOR SCHEDULED INSPECTION TYPES
THE NUMBER OF MAJOR SCHEDULED INSPECTION TYPES THAT
          NEOLLI
                                                                                                                                  190
                                CAM OCCUR AT THE END OF AN IMTERVAL FOLLOWING AN
                                                                                                                                  300
                                INSPECTION OF TYPE I
THE NUMBER OF INTERVALS FOR WHICH INSPECTION TYPE J
          (ISCH(1,J)
                                                                                                                                  320
                                FOLLOWS INSPECTION TYPE I
                                                                                                                                  330
                                THE NUMBER OF SPECIAL INSPECTION TYPES

I) THE MEAN AND STANUARD DEVIATION OF THE
          NSPT
                                                                                                                                  340
          UISF(I) SISP(I)
                                                                                                                                 350
                                INTERVAL LENGTH FOR SPECIAL INSPECTION TYPE I SET EDUAL TO I UP 2 FOR DISP IN WEEKS OH FLIGHT HOURS
          KISCO
                                                                                                                                  370
                                RESPECTIVELY
                                RATIO OF NUMBER OF PREFLIGHTS TO NUMBER OF HASIC
                                                                                                                                 190
                                POSIFLIGHTS

POSIFLIGHTS

FEAN AND STANUARD DEVIATION OF MANHOURS FOR
                                                                                                                                  400
          LMHI(I,J);SMHI(I,J)
                                                                                                                                 410
                               II(I)) MEAN AND STANDARD DEVIATION OF MANHOURS FOR INSPECTION TYPE J WHEN IT FOLLOWS TYPE I HEAD NORM FOR INSPECTION TYPE J WHEN IT FOL TYPE I EQUALS AN(I,J)+BN(I,J)+DELI WHEN IT FOLLOWS OF NORM FOR INSPECTION TYPE J WHEN IT FOLLOWS
                                                                                                                                 420
                                                                                                                                 440
                                TYPE I
                                                                                                                                 460
                                                MEAN AND STD. DEV. OF MANHOURS FOR SPECIAL
          EMHS(1) , SMHS(1)
                                INSPECTION TYPE I MEAN AND STD. DEV. OF NORM FOR SPECIAL
                                                                                                                                 480
                                                                                                                                  490
          ENS(1), SHS(1)
                               MEAN AND STO. NEV. OF PREFLIGHT MANHOURS MEAN AND STANDARD DEVIATION OF PREFLIGHT MANHOURS MEAN AND STU. UEV. OF HASIC POSTFLIGHT MANHOURS NUMBER OF WORK UNIT CODE SEIS (1,K) NUMBER OF UNSCHED, ACTIONS PER UNIT TIME ON THE OWNER OF UNSCHED.
                                                                                                                                  500
          EMHP , SMHP
                                                                                                                                 510
          EMHB , SMHB
          K SE I
                                                                                                                                 530
          ANU(I,K), BNU(1,K)
                                                                                                                                  540
                                K EQUAL
                                   EQUALS ANUITIKI+BNU(1.K)+(TIME AFTER INSPECTION
                                                                                                                                 550
                                                                                                                                  560
                               SET EQUAL TO 1. WHEN ANU-BNU-ANAR-RNAB- REFER TO
LATEST INSPECTION AND 3. WHEN THEY REFER TO THE
PREVIOUS INSPECTION
          DIK (1.K)
                                                                                                                                 SAn
                               STEADY-STATE UNSCHED. ACTION RATE FOR SET K

(K) MEAN AND STD. DEV. OF MANHOURS PER

UNSCHEUULLD ACTION ON SET K

MEAN AND STD. DEV. OF NORM PER UNSCHEDULED
                                                                                                                                 600
          UMAS(1,K)
          EMHU(K), SMHU(K)
                                                                                                                                 610
          ENUIK) , SNUIK)
                                                                                                                                 630
                                ACTION ON SET K
                                                                                                                                 640
                                                NUMBER OF ABORT MAINTENANCE ACTIONS ON SET
          ANAB(1.K) +BHAB(1.K)
                                                                                                                                 650
                                PER SORTIE EQUALS ANABITIKI+BNABITIKI+ITIME AFTER
                                                                                                                                 660
                                INSPECTION TYPE 1)
                               MEAN NORS PER WEEK FOR SET K
MEAN ANU STD. DEV. OF FLIGHT HOURS PER WEEK
MEAN ANU STD. DEV. OF SORTIES PER WEEK
MEAN ANU STD. DEV. OF LANDINGS PER WEEK
          ENWK (K)
                                                                                                                                 680
                                                                                                                                  690
          LFHa, SFHW
                                                                                                                                 700
          ELUW, SLDW
                                                                                                                                 710
                                NUMBER OF ACCIDENTS, INCIDENTS, EUMES PER SORTIE
          AILS
    C
          C C C C
                                                                                                                                  730
          COMMON I INT.
                                                                                                                                  20
C
              INPUT DATA
                                                                                                                                  30
        1DELI(10) . KI : HSCT . NFOL (3) . HSCH(3, 3) . NSPT . U1SP(60) . S1SP(60) . K1S(60) .
                                                                                                                                  40
        2H:EMHI(3:3):5M(((3:3):AN(3:3):BN(3:3):SN((3:3):EMHS(60):SMHS(60):
3ENS(60):5NS(60):EMHP:SMHP:EMHB:SMHB:N1:KSET:ANU(3:60):BNU(3:60):
4EMHU(60):SMHU(60):ENU(60):SHU(60):ANAB(3:60):BNAB(3:60):ENWK(60):
                                                                                                                                   50
                                                                                                                                  60
        SEFHW.SFHW.ESOW.SSOW.ELUW.SLDW.A1ES.DIK(3.60).UMAS(3.60).
UATA GENERATEU BY PEPF
                                                                                                                                  80
C
        6#KD(150);PWKU(150);EWKD;SWKD;EWKM;SWKM;EPFH;SPFH;EBPH;SRPH;NINT;
6X(61);FX(61);EFHU;VFHQ;
                                                                                                                                 100
                                                                                                                                 110
        TEMSUISMSUILIDISMSDI
C
                                                                                                                                 130
        DA(A GHH KATEU BY 1NVL

BLMHU(3,3),3HU(3,3),END(3,3),SHD(3,3),EED(3,3),SED(3,3),DD(3),

BUMAC(3),LACP(3),SACM(3),EACN(3),SACN(3),ACNS,

DATA GENERATED BY MPD

9LMHY(1D),SMHY(1D),EHHR(1D),SHHR(1D),EEMP(1D),SEMP(1D),DMP(1D)
C
                                                                                                                                 150
                                                                                                                                 160
C
                                                                                                                                 180
        9, EMIL (10) , SMHF (10)
         UIMENSION HEAD(20)
READ 4999 FOR FIRST AND LAST CARD END OF FILE TEST
                                                                                                                                 180
          REAH (5,49) LOFG
```

```
C READ IMPUT DATA
1 HEAD(5,100) HEAD
1F (HEAD(1)=E0F9) 3,2,3
                                                                                                                                                                                                            750
700
           2 CALL EDJMSG
                                                                                                                                                                                                             705
           3 HEAU(5,102) EFHW.SFHW.ESOW.SSOW.ELDW.SLDW.AIES
HEAU(5,102) H.EMHP.SMHP.EMHB.SMHB
REAU(5,101) HIKI.NSCT.NSPT.KSET
                                                                                                                                                                                                             780
                                                                                                                                                                                                             790
                                                                                                                                                                                                             800
                HEAD(5,102) (DELI(1),1=1,N1)
READ(5,101) (NFOL(1),1=1,MSCT)
                                                                                                                                                                                                             820
                DO 10 1=1.NSLT
N=NEGL(1)
                                                                                                                                                                                                             830
                                                                                                                                                                                                             840
       HEAD(5:101) (NSCH(1:J):J=I:N)
HEAD(5:104) (EMHI(I:J):SMHI(1:J):AN(I:J):BNII:J):SNI(1:J):J=I:N)
REAU WUC SE( DATA DEPENDENT ON TIME
                                                                                                                                                                                                            850
                                                                                                                                                                                                            870
               REAU(5:103) (AHU(I:K):dNU(I:K):ANAB(I:K):BNAB(I:K):K=1:KSET)
REAU(5:102) (DIK(I:K):K=1:KSET)
REAU(5:102) (UMAS(I:K):K=1:KSET)
                                                                                                                                                                                                             890
                                                                                                                                                                                                             900
         10 CONTINUE
                                                                                                                                                                                                            910
C READ WUC SEL DATA INDEPENDENT OF TIME
                                                                                                                                                                                                            920
       READ(5:104) (EMHD(K1:SMHU(K):ENU(K):SNU(K):ENWK(K):KE1:KSET)
READ SPECIAL INSPECTION DATA
READ(5:105) (EMHS(1):SMHS(1):ENS(1):5NS(1):DISP(1):SISP(1):KIS(1):
                                                                                                                                                                                                            940
              11=I.NSPT)
               WRITE (6.300) HEAD
WRITE (6.301) EFHW.SFHW
                                                                                                                                                                                                            970
                                                                                                                                                                                                            980
                WRITE (6,302) ESOW,550W WRITE (6,303) ELDW,5EDW WRITE (6,304) EMHP,5MHP
                                                                                                                                                                                                         1000
                                                                                                                                                                                                          1010
                WRITE (6,305) EMHB:SMHB
WRITE (6,306) R
WRITE (6,307) A1ES
                                                                                                                                                                                                          1020
                                                                                                                                                                                                          1030
               WR11E(6:308)
DO 15 T=1:NSCT
N=NFOL(T)
                                                                                                                                                                                                          1050
                                                                                                                                                                                                          1060
                                                                                                                                                                                                         1070
                 WRITE(6,309) (1,J, EMH1(1,J),SMH1(1,J),AN(1,J),BN(1,J),SN1(1,J),
         INSCHEDANT AND THE WILLIAMS AND THE THE PARTY AND THE PART
                                                                                                                                                                                                          1090
                                                                                                                                                                                                          111n
112n
1130
                (atcentation
             WITTE (0.311) ((I.K .ANU(1.K).BNU(1.K).DMAS(1.K).ANAR(1.K).
10NAB(1.K).K=1.KSET).1=1.NSCT)
               WRITE(6,312)
#R11E(6,313) (K,EMHD(K),SMHU(K),ENU(K),SNU(K),ENWK(K),K=1,KSET)
                                                                                                                                                                                                          1150
                                                                                                                                                                                                          1160
                WR1(L(6.314)
             WRITE(6,315) (J.EMHS(J).SMHS(J).ENS(J).SNS(J).DISP(J).S15P(J).
1 KIS(J).J=I.HSPT)
                                                                                                                                                                                                          1180
                                                                                                                                                                                                          1190
                W4(1L(6,400)
                                                                                                                                                                                                          1200
C PERFORM CALCULATIONS
                                                                                                                                                                                                          1210
1220
               UO 16 (INT=1.NI
               CALL SPES
                                                                                                                                                                                                          1240
                                                                                                                                                                                                          1250
                                                                                                                                                                                                          1260
1270
                CALL MPD
       PRINT INTERVAL RESULTS
WHILL (6:401) DELICIENT)
                                                                                                                                                                                                          1280
1290
                WRI(L(bralle)
                WRITE (0.403) EWKD. SWKD
                                                                                                                                                                                                           1300
                WRITE (6:404) EPFH:SPFH
#RI(E(6:405) EBPH:SBPH
                                                                                                                                                                                                          1310
                                                                                                                                                                                                          1320
                WRITE (6, 406) EMSD. SMSD
WHITE (6, 407) ENSD. SNSD
                                                                                                                                                                                                          1330
1340
                 w#(1)E(6:413)
                                                                                                                                                                                                           1350
                 WR1)L(0.4)4) (1,UMAC(1),1=1,NSCT)
                                                                                                                                                                                                          1360
                WRITE (0:415)
                                                                                                                                                                                                          1370
                 WHILE (6,417) (I. EACH (1), 5ACH (1), 1=1, NSCT)
                                                                                                                                                                                                           1350
                                                                                                                                                                                                          1390
                #PI(E(6,410) #RIJE(6,417) (I,EACN(1),SACN(1),I=1,NSCT)
                                                                                                                                                                                                           1400
                 #411E (6:408)
                                                                                                                                                                                                          1410
                DO 516 [=]."5CT
                                                                                                                                                                                                           1420
                                                                                                                                                                                                          1430
                DO 515 J=1+N
wk1(E(6+409) 1+J+EMHD(1+J1+SMHD(1+J)
                                                                                                                                                                                                           1450
                                                                                                                                                                                                           1460
      515 CONTINUE
                                                                                                                                                                                                           1470
      SULLINOS 616
                WP1(E(0.410
                                                                                                                                                                                                           1480
               DO 518 1=1.45CT
                                                                                                                                                                                                           1490
                                                                                                                                                                                                           1500
                UO 517 J=1+11
                                                                                                                                                                                                           1510
                #RIIL(6:409) 1:J:END(1:J):SND(1:J)
                                                                                                                                                                                                           1520
                                                                                                                                                                                                          1530
1540
      517 CONTTINUE
      STA LONTINUE
                                                                                                                                                                                                           1550
                #41(£(0:411)
                DO 520 I=1.NSCT
                                                                                                                                                                                                          1560
                HENFOL (I)
                                                                                                                                                                                                           1570
                00 519 J=1:11
                                                                                                                                                                                                           1580
                #R1(L(6,4)2) 1,J.EED(1,J).5ED(1,J)
                                                                                                                                                                                                           1590
                                                                                                                                                                                                           1600
      519 CONTINUE
                                                                                                                                                                                                          1610
      520 CONTINUE
                ##1) L (6, 416)
                 WRITE(6,419) (1,00(1),1=1,NSCT)
         16 COHLINUE
                                                                                                                                                                                                           1640
```

740

```
C PRINT MAINTENANCE PROGRAM RESULTS
                                                                                                                                                                      1650
             #R11E(6:200)
             WRITE (6, 201)
1F (K1-2) 20, 30, 40
                                                                                                                                                                      1670
                                                                                                                                                                      1680
      20 WR11E (6 - 202)
00 10 70
                                                                                                                                                                       1690
                                                                                                                                                                      1700
      30 WP17E(6.203)
GO 10 70
40 1F(K1-4) 50:60:2
                                                                                                                                                                       1710
                                                                                                                                                                      1720
1730
                                                                                                                                                                      1740
1750
      50 WRITE (6,204)
             60 10 70
       60 #R11L(6, 205)
                                                                                                                                                                       1760
      00 WRITE(0;200) (DELI(1);EMHY(1);SMHY(1);EMHF(1);SMHF(1);ENHR(1);
1SMHK(1);EMHY(1);SEMP(1);DMP(1);1=1;N1)
                                                                                                                                                                       1770
                                                                                                                                                                       1780
             60 10 1
                                                                                                                                                                       1790
       93 FORMATIAL
                                                                                                                                                                      1712
     100 FCHMAT(2UA4)
                                                                                                                                                                       1720
    101 FORMAT(1615)
102 FORMAT(8610.5)
                                                                                                                                                                      1810
                                                                                                                                                                      1740
    103 FORMAT(4+10.5)
104 FORMAT(5+10.5)
                                                                                                                                                                      1760
    104 FORMAT(5+10-5):

105 FORMAT(6+10-5):110)

200 FORMAT(1H0,2/MAA1NTEHANCE PROGRAM RESULTS)

2011 FORMAT(1H0,3%+8H1NTEHVAL,7%+13HMANHOURS/YEAR,4%+20HMANHOURS/FLIGHT

1 HOUK+4%+14HMOR HOURS/HOUK+6%+13HFFFECTIVENESS,7%+13HDEPENOABILITY
                                                                                                                                                                       1770
                                                                                                                                                                       1860
                                                                                                                                                                       1870
                                                                                                                                                                       1880
                                                                                                                                                                       1 A 2 O
    202 FORMAT( 5X:80:(WEEKS) .4(7X:14HMEAN STD : 203 FORMAT(1X:140:(FLIGHT HOURS):4X:4(14HMEAN
                                                                                            STD DEV)/)
MEAN STO DEV+7X1/1
                                                                                                                                                                       1900
                                                                                                                                                                      1910
    203 FORMAT(4x 94150ATTES);3(6x:14HMEAN STD DEV);
204 FORMAT(4x 94150ATTES);3(6x:14HMEAN STD DEV);
205 FORMAT(3x:10H(LANDINGS);3(6x:14HMEAN STU DEV);
206 FORMAT( bx:+4.0x;F5.0+4x;F5.0;4x;F5.0;4x;F5.0;6x;F6.4;3x;
1F6.4+6x;F6.4*3x;F6.4* 8x;F6.4*)
300 FORMAT(1:11:20Av/22X;44)PEAN; 4x;F9STD DEV/)
                                                                                                                                                                       1930
                                                                                                                                                                       1950
    301 FORMAT(7x+5H+H/WK+ 5x+F9.4+2X+F9.4)
3H2 FORMAT(7x+6H5OR/WK+4x+F9.4+2x+F9.4)
                                                                                                                                                                      1970
                                                                                                                                                                       1980
    303 FORMAT (7A+6HLDG/WK+4X+F9.4+2X+F9.4)
304 FORMAT (1:10+6X+5HMH/PF+5X+F9.4+2X+F9.4)
                                                                                                                                                                       1990
                                                                                                                                                                      2000
     305 FORMAT (7x,611-11/110,4x,F9.4,2x,F9.4)
                                                                                                                                                                       2010
    306 FORMAT(7x+14K+9x+F9.4+2x+F9.4+)
307 FORMAT(1H0+6x+8HA1ES/SOR+2x+F9.4+2x+F9.4+)
                                                                                                                                                                      2020
                                                                                                                                                                      2030
    308 FORMAT(1)10-25HSCHEDULED INSPECTION DATA//24x,8HMANHOURS,21x,4HNORM
1/10x,1H1,3x,1HJ,7x,4HMEAN,4x,7HSTD DEV,13x,1HA,1ux,1HR,Ax,7HSTD DE
                                                                                                                                                                      2050
           2V: 7X: (HNO. 1N5P//)
                                                                                                                                                                      2060
    309 FORMATICA, 12, 2x, 12, 2x, F9, 4, 2x, F9, 4, 5x, F9, 4, 2x, F9, 4, 6x, F9, 4, 12x,
                                                                                                                                                                     2070
          1131
                                                                                                                                                                      2080
    310 FORMAT(1110, 20x, 3HUMA, 32x, 6HABORTS/10x, 1HI, 3x, 1HK, 10x, 1HA, 10x, 1HB,
                                                                                                                                                                      2090
          1 9x.2HSS,11x,1HA,10x,1HB//)
FORMAT(9x,12,2x,12,F11,5,F11,5,F11,5,F14,5,F11,5)
                                                                                                                                                                     2100
                                                                                                                                                                     2110
   311 FORMAT(9x:12:2x:12:F11.5:F11.5:F11.5:F14.5:F14.5)
312 FORMAT(1H0:24x:6HMH/UMA:19x:8HNORM/UMA/ 14x:1HK:7x:4HMEAN:4x:7HSTO 1 DEV:10x:HHMEAN:4x:7HSTO DEV:7x:7HNORS/MK//)
313 FORHA1(13x:12:2x:F9.4:2x:F9.4:5x:F9.4:5x:F9.4)
314 FORMAT(1H0:23HSPECIAL INSPECTION DATA//24x:8HMANHOURS:19x:4HNORM:
119x:8HINTERVAL/ 14x:HLJ:7x:HMEAN:4x:7HSTO DEV:10x:4HMEAN:4x:7HST
2D UEV:10x:4HMEAN:4x:/HSTU DEV:6x:3HKIS//)
315 FORMAT(13x:12:2x:F9.4:2x:F9.4:5x:F9.4:2x:F9.4:2x:F9.4:
                                                                                                                                                                     2130
2140
                                                                                                                                                                     2150
                                                                                                                                                                     2160
                                                                                                                                                                     2170
                                                                                                                                                                     2180
                                                                                                                                                                      2190
          16×131
   JIG FORMAT(1110.23HWORK UNII CODE SET DATA)
400 FORMAT(1110.16HINTERVAL RESULTS)
401 FORMAT(1110.11HINIERVAL = F4.0)
402 FORMAT(110.41X.4HMEAN.4X.7HSTD DEV)
                                                                                                                                                                     2200
                                                                                                                                                                      2210
                                                                                                                                                                     2220
                                                                                                                                                                     2230
    403 FORMAT (7x+5HWEEKS+23x+2F11.2)
                                                                                                                                                                      2240
   403 FORMAT(TX:SHWELKS:23X,2F11.2)
404 FORMAT(TX:SHWELFLIGHT MANHOURS:10X:2F11.2)
405 FORMAT(TX:2HAPREFLIGHT MANHOURS:3X:2F11.2)
406 FORMAT(1H0:6x:25HSPEC, 1HSPECTION MANHOURS:3X:2F11.2)
407 FORMAT(1H0:6x:25HSPEC, 1NSPECTION NORM:7X:2F11.2)
408 FORMAT(1H0:6x:1HT0TAL MANHOURS:)
409 FORMAT(1H0:6x:1HT0TAL MANHOURS:)
409 FORMAT(1H0:6x:1HT0TAL MANHOURS:)
410 FORMAT(1H0:6x:1HT0TAL NOR/)
411 FORMAT(1H0:6x:1HT0TAL NOR/)
                                                                                                                                                                      2250
                                                                                                                                                                      2260
                                                                                                                                                                     2280
                                                                                                                                                                      2300
                                                                                                                                                                       2310
   #10 FORMAT()+0+0+9HTOTAL NOR/)
#11 FORMAT(1H0+0+1HEFFECTIVENESS/)
#12 FORMAT(7x+4H1 = ,14+5x+4HJ = ,14, 7x,2F11.5)
#13 FORMAT(7x+4H1 = ,14+5x+4HJ = ,14, 7x,2F11.5)
#14 FORMAT(7x+4H1 = ,14+5x+11.2)
#15 FORMAT(1H0+0+13HUNSCHED- MANHOURS/)
#16 FORMAT(1H0+0+13HUNSCHED- NORM/)
#17 FORMAT(3+4H1 = ,14+50x+2F11.2)
                                                                                                                                                                     2320
                                                                                                                                                                     2330
                                                                                                                                                                      2350
                                                                                                                                                                      2360
                                                                                                                                                                     2370
2380
   417 FOHMA) (7x,4411 = ,14,201,2511,2)
418 FOHMAT(110,6x,13HDEPENDABILITY/)
                                                                                                                                                                      2390
   2400
                                                                                                                                                                      2410
            UFL1 1TSELF
EMHY(1).SMHY(1)
                                                                                                                                                                      2430
                                                                                                                                                                      2440
                                                               MEAN AND STD. DEV. OF MANHOURS PER YEAR
                                                              MEAN AND STD. DEV. OF NORM HOURS PER HOUR MEAN AND STD. DEV. OF EFFECTIVENESS DEPENDABILITY
            ENHICETT - SNHP (I
                                                                                                                                                                      2450
            LEMP(1) SEMP(I)
                                                                                                                                                                      2460
             OMP(I)
                                                                                                                                                                       2470
                         c c . c c c c c c c c c c c c c c c c
                                                                                                                                                                      2480
```

```
SUBROUTINE PEPE
                                                                                                                         2500
    THIS HOUTINE CALCULATES THE TOTAL NUMBER OF PREFLIGHT AND BASIC
                                                                                                                         2510
    POSTFLIGHT MANIGURS FON DELLA
THE NUMBER OF MERKS IN THE MAINTENANCE PROGRAM IS ALSO DETERMINED
LOMMUN TINTA
INPUT CATA
                                                                                                                         2520
                                                                                                                         2540
                                                                                                                         2550
C
        1DEL!(10);K1::SCT;NFOL(3);NSCH(3,3);NSPT;DISP(60);S1SP(60);K1S(60);
2R;EHH1(3:3);JMH1(3,3);AN(3,3);BN(3:3);SN(3:3);EMS(60);SMS(60);
3LHS(60);SNS(60);EMHP;SMHP;EMHB;SMH3;H1;KSET;ANU(3;60);BNU(3;60);
4LHH1(60);SMH0(60);EHU(60);SNO(60);ANAB(3;60);RNAB(3;60);ENWK(60);
                                                                                                                         2560
2570
                                                                                                                         25A0
2590
        SLFHW.SFHWEESUWSSOWELDWSLDWATESADIK(3:60):UMAS(3:60):
DATA GENERATED BY PFPF
6WKU(150):PWKU(150):EWKD:SWKO:EWKM:SWKM:EPFH:SPFH:EBPH:SRPH:NINT:
                                                                                                                         2600
C
                                                                                                                         2610
        OX (G1) FX (G1) EFHD. VFHO.

DATA GENERATED BY SPIS
                                                                                                                         2630
2640
C
        7EMSU. SMSU. EHSD. SNSD.
                                                                                                                         2650
        DATA GENERATED BY INVL

BEMHU(3,3),SMID(3,3),END(3,3),SND(3,3),EED(3,3),SED(3,3),DD(3),

BUMAC(3),CACM(3),SACM(3),EACN(3),SACN(3),ACNS,
                                                                                                                         2660
                                                                                                                         2670
                                                                                                                         2680
        DATA GENERATED BY MPD
96MHY(10),SMHT(10),ENHR(10),SNHR(10),EEMP(10),SEMP(10),DMP(10)
                                                                                                                         2690
                                                                                                                         2700
                                                                                                                         2710
2720
2730
        9.EMH (10).5MHF(10)
DIMLH510H, 500(100).P500(100).KF(2).K5(2).PP(2.2)
C STONE CUMULATIVE NORMAL DISTRIBUTION
      1 x(1)=-3.0
00 10 1=2.61
                                                                                                                         2740
         x(1)=x(1-1)+u.1
                                                                                                                         2760
                                                                                                                         2770
2780
2790
     10 CONTINUE
         FX(31)=0.5
         FX(32)=0.539U
FX(33)=0.5793
                                                                                                                         2800
         FX (34)=0.6179
                                                                                                                         2810
         FX(35)=0.6554
FX(36)=0.6915
                                                                                                                         2830
          FX(37)=0.7257
                                                                                                                         2840
         FX(38)=0.750U
                                                                                                                         2850
          FX1391=0.7881
                                                                                                                         2860
         Fx(40)=0.8159
         FX(41)=0.8413
                                                                                                                         2880
                                                                                                                         2890
         FX1431=0.8849
                                                                                                                         2900
         FX1441=0.0032
                                                                                                                         2910
                                                                                                                         2920
2930
         FX(45)=0.914c
         FX(40)=0.933c
                                                                                                                         2940
         FX(47)=0.045
         FX(40)=0.9554
         FX(49)=0.9641
FX(50)=0.9713
FX(51)=0.9772
                                                                                                                         2970
                                                                                                                         2980
         FX1521=0.9821
                                                                                                                         2990
         FY1551=0.9861
                                                                                                                         3000
         +x(54)=0.0845
+x(55)=0.9910
                                                                                                                          3010
                                                                                                                         3020
          Fx (50)=0.9930
                                                                                                                         3030
         FX(57)=0.9953
FX(56)=0.9963
                                                                                                                         3040
                                                                                                                         3050
         FX(59)=0.9974
                                                                                                                          3060
         FX(60)=0.9981
                                                                                                                         3070
         FX(01)=0.9987
                                                                                                                         3080
         00 20 1=1.50
                                                                                                                          3090
         FX(1)=1.U-FX(62-1)
                                                                                                                         3100
     20 CONTINUE
    1F(k1-2) 100+200+30
30 1F(k1-4) 300+400+1000
                                                                                                                         3120
                                                                                                                         3130
   INTERVAL IS IN MEEKS
100 ESOU=DELIGIBATIMESON
                                                                                                                         3140
                                                                                                                         3150
         SSOD=DELICITIATIASSON
EWRO=DELICITATI
                                                                                                                         3170
         SWKU=0.0
DO 110 1=1.149
WKU(1)=1
                                                                                                                         3150
                                                                                                                         3190
         PWKU(11=0.0
                                                                                                                         3210
   110 CONTINUE
                                                                                                                         3220
         #KD(150)=F#KU
                                                                                                                         3230
  PWKU(150)=1.0

GO 10 600

INTLHVAL IS IN FLIGHT HOUNS

200 1F(5FHw) 220-220-201

201 HL=EFHW/(5FHw+SFHW)
                                                                                                                         3240
3250
                                                                                                                          3260
                                                                                                                         3270
                                                                                                                         3280
                                                                                                                         3290
3300
         KK SEF HWOKL
   205 KL=HK
         KH=KL+1
                                                                                                                         3310
         C=DEL1(I1M)
                                                                                                                         3320
         00 210 I=1+150
                                                                                                                         3330
                                                                                                                         3340
         UC= C/WKU(I)
1F(HK) 2U8.2U8.20K
                                                                                                                         3360
```

	206	PP(1,1)=HL+UL+EXP(-RL+UC)/WKD	(1)	3370
		PL=PP(1+11+(RL+DC)++(KL-1)		3380
		PH=PL+RL+DC		3390
		KENUSKL-1		3400
		DO 207 J=2+KEND		3410
		PL=PL/J		3420
		PH=PH/J		3430
	207	CONTINUE		3440
		PH=PH/KL		3450
		PWK()(1)=PL+(PH-PL)+(HK-KL)		3460
		60 10 210		3470
	805	PWKU(1)=KL+DC+EXP(-RL+DC)/WKD	(1)	3480
	210	CONTINUE		3490
		GO 10 500		3500
	220	PWK((1)=-101.		3510
		EWKU=DEL1(111.T)/EFHW		3520
		SWKD=0.0		3530
		60 10 475		3540
C	1111	TERVAL IS IN SORTIES		3550
	300	ESOD=DELI(11NT)		3560
		5500=0.0		3570
		1F(550W) 320.320.301		3580
	301	HL=L50W/(550++550W)		3590
		HK=ESOW+HL		3600
		60 10 205		3610
	320	EWKU=DEL1(11HT)/LSOW		3620
		SWKD=0.0		3630
		P'MKU(1)=-101.		3640
		60 10 600		3650
С		TERVAL IS IN LANDINGS		3660
		1F(SLLW) 420.420.401		3670
	401	RL=ELOW/(SLDW+SLDW)		3680
		RK=FFOM+RF		3690
		GO TO 205		3700
	420	EWRU=UEL1(IINT)/ELDW		3710
		SWKU=0.0		3720
		FWKU(1)=-101.		3730
		1F(550W) 480.480.490		3740
	480	ESQUEESO##EWND		3750
		550u=0.0		3760
		60 (0 600		3770
	490	HT=F20M\(Z20Me220M)		3780
		KK=ESOW+RL		3790
		RL=HK		3800
		KENU=KL-I		3810
		FAC (=HL/LWKD		3820
		DO 498 T=1.100		3830
		500(1)=4.•1		3640
		FAC=FACT+SOULT)		3850
		1F(KLIID) 496+496+491	1	3860
	491	SUM=1.0		3870
		(EKM=1.0		3850
		U0 492 J=1 (KENI)	1	3890
		1Fich = 1 (RM+FAC/J		3900
		SUM_SUM4 (FIRM		3910
	442	C0041130E PL=50M		3920
		PH=50N+TERM+FAC/KL		3930 3940
		TP=PL+(PH=PL)+(RK=KL)		
		PSOU(1)=1LXP(~FAC)*TP		3950 3960
		60 10 498		3970
	406	PSUU(1)=1EXP(-FAC)		3980
		CONTINUE		3990
	. , .	u0 10 555		4000
	500	1F(550W) 532+532+511		4010
	511	RLSH=ESO#/(550W#550W)		4020
	~	RKSA=ESON+HLSW		4030
		KF(1)=RK		4040
		NF(2)=KF(1)+1		4050
		KS(1)=RKSW		4060
		KS(2)=KS(1)+1		4070
		1F(KF(1)) 440+440+442		4080
	440	KF(1)=1		4090
	. , ,	HK=1.		4100
	442	1F(K5(1)) 444+444+446		4110
		NS(1)=1		4120
		RKSW=1.		4130
	446	U0 530 1=1+100		4140
	- 40	500(1)=1•4•#		4150
		(OPERLSW+SOD(1)		4160
		DOTERLODEL 1() INT) +TOP		4170
		DEN=(OP/HO(4160
		U0 524 LS=1+2		4190
		KENU=KS(LS)-1		4200
		U0 522 LF=1+2		4210
		KKENF(LF)		4220
		C=(UEL1()1NT)+HL/BOT)++KK		4230
		SUME		
				4240
		1F(KEND) 520+520+447		4250

```
447 DO 448 JET+KEND
C=C+DEN+(KK+J-1)/J
                                                                                                4260
                                                                                                4270
4280
        SUM=SUM+L
   448 CONTINUE
                                                                                                4290
   520 PPILSILF1 =SUM
   522 CONCLINUE
   524 CONTINUE
                                                                                                4320
        DKESKK-KF (1)
                                                                                                4330
        PL=PP(1,1)+(PP(1,2)-PP(1,1))+DKF
                                                                                                4340
        PH=PP(2.1)+(PP(2.2)-PP(2.1))+DKF
                                                                                                4350
               =PL+(PH-PL)+(HKSW-KS(1))
        P500(1)=1.-P
                                                                                                4370
4380
   530 CONTINUE
  532 DO 540 1=1.100
                                                                                                4390
                                                                                                4400
        TP=0.0
LP1)=50D(1)/ESOW
                                                                                                4420
  DO 535 J=1:150
1F(kKU1)-CK1T) 534:534:536
534 TP=(I*+I*kC(1)
538 CON):NUF
                                                                                                4430
                                                                                                4440
                                                                                                4450
                                                                                                4460
        PSUD(11=(P
                                                                                                4470
   540 CONTINUE
                                                                                                4480
        500(1)=4.+1
                                                                                                4490
  550 Nw=150
                                                                                                4500
        CALL MIDDIWAJ.PWKD.NW.EWKD.SWKD)
                                                                                                4510
   555 NS=100
                                                                                                4520
  CALL MNDY (SOU .PSOD, NS.ESOD, SSOD) 600 EPPD=ESOU
                                                                                                4530
                                                                                                4540
        SAPU=SSOU
                                                                                                4550
        LPFU=H.FBPU
                                                                                                4560
4570
        SPF U=H . SUPU
       NIN1=0.0
U0 010 1=1.05CT
                                                                                                4590
                                                                                               4590
        HM=HFUL(1)
                                                                                                4600
       00 609 Jatens
NIN(=010(+05CH(1+J)
                                                                                                4610
  609 CONTINUE
                                                                                                4630
                                                                                                4640
   CALCULATE WEERS IN MAINTENANCE PROGRAM PERIOD EMARCHINI OF AND SWAMESOR (INTINTO SWAD OF SWAD)
c
                                                                                               4650
                                                                                                4660
                                                                                                4670
  CALCULATE PREFEIGHT AND BASIC POSTELIGHT MANHOURS IN INTERVAL
                                                                                               4680
        LPFH=EMHP+EPFD
                                                                                                4690
        SPEN=SGRT (SNHP+SMHP+EPFD+SPFD+SPFD+EMHP+EMHP)
                                                                                                4700
        LAPHIEMHPATPED
                                                                                               4710
        SIPHISGP ( (SPIHL+SMHB+ERPD+SBPD+SBPD+EMHB+EMHR)
C CALUILA(E FLIGH) HOURS IN INTERVAL
EFHIDELFHAMENAD
                                                                                               4730
        VFIID=LakD+SFIIW+SFHW+SWKD+SWKD+EFHW+EFHW
        RECURN
                                                                                               4760
4770
         THE VARIABLES TO BE USED IN OTHER ROUTINES ARE

MMD(1), PMKD(1)

DENSITY FUNCTION FOR WEEKS PER INTERVAL

LWKIN-SWKD

MEAN AND STD DEV OF WEEKS PER MP

LPFH-SPFH

MEAN AND STD DEV OF PREFIGHT MANHOURS IN INTERVAL
                                                                                                4780
                                                                                               4790
                                                                                                4800
                                                                                                4820
                         MEAN AND STO DEV OF HASIC POSTFLIGHT MANHOURS IN
       EBPH, SBFH
                       INTERVAL HUMBER OF MAJOR INSPECTION INTERVALS
                                                                                                4840
 4850
                                                                                                4860
                                                                                                4870
                                                                                                4880
        SPHIROUTINE SPIS
                                                                                                4870
      4900
                                                                                               4910
C
                                                                                                4930
                                                                                                4940
                                                                                                4950
      SEFFIX, SEPHIL SCHISSON CLONISLUMI ATESIDIK (3:60) CUMAS (3:60) CALA GENERATED BY PEPE
                                                                                                4960
                                                                                                4970
C
      6AKD(150),PWKU(150),LWKU,SWKD.EWKM.SWKM.EPFH.SPFH.EBPH.SBPH.NINT.
6KLG1),FX(G1),FFHD.VFHD.
DATA GENERAJED BY SPIS
                                                                                                4980
                                                                                                4990
                                                                                                5000
      7LMSD+5MSD+ET3D+5NSD+
UA(A GENERATED BY INVL
8L'4NU(3+3)+5MND(3+3)+5MD(3+3)+EEO(3+3)+5ED(3+3)+DD(3)+
                                                                                                5010
C
                                                                                                5020
                                                                                                5030
      BUTAL (3) , LACK (3) , SACK (3) , EACK (3) , SACK (3) , ACKS ,
                                                                                                5040
                                                                                                5050
      9EPHY(10), SMHY(10), ENHR(10), SNHR(10), EEMP(10), SEMP(10), DMP(10)
9-EHHF(10), SMHF(10)
                                                                                                5060
                                                                                                5070
      UTHERS10% UTSW(150)*PTSW(150)*PNSP(100)*SPM4(20)*PSPM(20)*
15PN(20)*PSPN(20)*TMH5(150)*PMHS(150)*TNS(150)*PNS(150)
2*NS(2)*KF(2)*PP(2*2)
                                                                                                5080
                                                                                                5090
```

	ŁMSU=U.0	
	SMSU=0.0	5110 5120
	FN2n=0.0	5130
	SNSU=0.0	5140
	UO 100 I=1:113P1	5150
	1F(K15(1)-2) 10:20:1000	5160
	1'ITENVAL IN WEEKS	5170
10	Liek=DISP(I) Sigh=SISP(I)	5180 5190
	60 10 50	5200
C 110	H INTLIVAL IN FLIGHT HOURS	5210
	1F(SF1W) 400-400-21	5220
	1F(515P(1)) 42,42,25	5230
25	RESPENISP(1)/(SISP(I)+SISP(I)) RESPENESP+UISP(I)	5240
	KLF == FHw/(SFHWOSFHW)	5250 5260
	MYF will FHW + MLF W	5270
	KS(I)=RKSP	5290
	KS(2)=KS(1)+1	5290
	KF(1)=HKFW	5300
	KF(2)=KF(1)+1 1F(KF(1)) 20,26,27	5310 5320
26	MF(1)=1	5330
	HKFw=1.	5340
	1F(NS(1)) 28.28.29	5350
28	KS(1)=1 RKSP=1.	5360
-23	U0 40 J=1+150	5370 5380
• •	UISM(J)=J	5390
	UU 35 JF=1.2	5400
	KENUEKF(JF)+1	5410
	UO 34 J5=1+2 KK=K5(J5)	5420
	DE DERICE WERE SPEC	5430 5440
	C=(RLSP+J/ULR)++KK	5450
	UCNERLEW/CE:	5460
	SUM=C	5470
30	1F (KLNO) 32+32+30 UO 31 JI=I+KLNO	5480
30	C=C+DL11+(KK+J1-1)/J1	5490 5500
	SIM-ESUM+C	5510
	CONTAINUE	5520
	PP(JF,JS)=SUM CONTINUE	5530
	CONTINUE	5540 5550
•	UFS=RKCP=KS(1)	5560
	PL=PP(1.1)+(PP(1.2)-PP(1.1))+DKS	5570
	PH=#9(2,1)+(PP(2,2)-PP(2,1))+DKS	5580
40	PIS% (J)=PL+(PH-PL)+(HKFW-KF(1)) CON) INUF	5590 5600
40	507 01 09	5610
42	HLF+=LFHH/(SFHW+SFHW)	5620
	KKFA=LFHw+KLFW	5630
	KLF n=rKF w	5640
	K'IF.ZKLF.#1 KLNU=KLF#-1	5650 5660
	DO 4H J=1+15U	5670
	U15*(J)=J	5680
	1F(HKFW-1.) 45.43.43	5690
43	FAC=RLFW+D1SP(1)/J	5700
	5UM=1.0 1EHM=1.0	5710 5720
	00 44 K=1.KL.D	5730
	TEHN=TERMOFAL/K	5740
	SUM=SUM+TERN	5750
44	CONTINUE PLEE AP (ACT + SUM	5760 5770
	SUMESUM+TERM+FAC/KLFW	5780
	PH=LAP(-FAC)+SUM	5790
	PISW(J)=PL+(PHyPL)+(HKFW+KLFW)	5800
	00 10 4A	5810
	PISA(J)=LXP(-RLFW+DISP(J)/J) CON1144E	5A20 5A30
	60 (0 602	5840
	IF(SISP(1)) 410,410,415	5850
410	ETWA:DISP(1)/EFHW	5860
	51wk=0,0	5870 5880
415	WLSP=DISH(I)/(SISP(I)+SISP(I))	5890
	MKSP=U1SP(1) •RLSP	5900
	RLSP=DKSP	5910
	RHSPIRLSP+1	5920
	KENUEKLSP-1 UN 420 JE1/150	5930 5940
	0)28(3)20	5950
	IF (MASP-1.) 414.416.416	5960

	416	FAC=HLSP+EFHn/J	5970
		SUM=1.0	5980
		1EH:=1.0	5990
		00 410 K=1+KENU	6000
			6010
		TERM=TERM+FAC/k	
		SU#=SUM+TERP	6020
	418	COH THUE	6030
		PL=1EXP(-FAC)+SUM	6040
			6050
		SUM=SUM+ (EHM+FAC/KLSP	
		PH=1EXP(-FAC)+SUM	6060
		P15#(J)=PL+(PH-PL)+(RKSP-KLSP)	6070
		60 10 420	6080
		415x(J)=1ExP(-KLSP4EFHW/J)	6090
	420	CONT 1/UE	6100
	D02	NA=150	6110
	-	CALL MNDY (D15W.P15W.NA, EIWK, SIWK)	6120
_		LCULATE NUMBER OF SPECIAL INSPECTIONS PER INTERVAL	6130
C			
C	PN	SP(K) 1S THE PROBABILITY THAT THE NUMBER OF INSPECTIONS IS	6140
C	.LI	E. (K-1)	6150
	50	1F(S14K) 200.200.55	6160
			6170
	23	U1MN=E1WK=3.0*\$1WK	
		1F(U1MN-5.E-7) 51.52.52	6180
	51	D1M/==.001+E1mX	6190
		NMx=(EWKU+3.+SwKU)/01MN	6200
	-	1F (NMX) 100+100+001	6210
		1F(NMX-9y) 54+54+53	6550
	53	NMX=99	6230
	54	U0 61 J=1,N ⁴ X	6240
		PP(1,1)=u.0	6250
			6260
		F=J+F1MK	
		L1=(J+1) +F1wA '	6270
		S=Surt(FLOAT(J))+S1WR	6280
		51=5WRT (FLOAT (J+1))+51WK	6290
			6300
		1F(PWKD(1)+10+) 155+56+56	
	122	CALL NML(FWKD+E+S+P)	6310
		CALL HML(EWKU+E1+S1+P1)	6320
		PP(1,1)=PP(1,1)+(P-P1)	6330
		60 TC 16U	
			6340
	20	U0 60 K=1.150	6350
		1F(PHKU(K)-1.E-6) 60.58.58	6360
	58	C=MKU(K)	6370
		CALL NML(C.E.S.P)	
			6380
		CALL NML(C+E1+S1+P1)	6390
		PP(1,1)=PP(1,1)+(P-P1)+ PWKD(K)	6400
	60	CONTINUE	- 6410
		PHSP (J+1) = PP (1+1)	6420
	91	CONTINUE	6430
		IF(PwKD(1)+10+) 170+165+165	6440
	165	PP(1.1)=0.0	6450
		DO 65 K=1+150	6460
		1 (1'akl)(h)-1.E-6) 65:63:63	6470
	02	CIWK(/K)	6450
		CALL TIME (C+): IWK+SIWK+P)	6490
		PP(1,1)=PP(1,1)+(1,-P)+ PWKO(K)	6500
	65	CONITIUF	6510
		P'45P(1)=PP(1•1)	
			6520
		60 10 300	6530
	170	CALL HML(EWRO-ETWK-S1WK-P)	6540
		PNSP(1)=1P	6550
		60 10 300	6560
	200		
			6570
	Z10	MMIELNKO/Elek	65A0
		PMSP(1)=-101.	6590
		60 16 300	6600
	420	NMX=#KU(150)/E1WK	
			6610
	200	1F (NFX- 99) 222,222,221	6620
		H/X=97	6630
	555	UO 250 J=1+NAX	6640
		P16P(J+1)=0.0	6650
		UO 240 K=1+150	6660
		1F(HMED(K)-1.EAG) 240.226.226	
			6670
	420	G=WRU(K)	6680
		1F(L=(J=1)+E1WK) 24U+250+230	6690
	230	1F(L-J-F1WK) 235,240,240	6700
		PNSP(J+1) =PNSP(J+1)+PWKO(K)	6710
		CONTINUE	
	_		6720
	250	CONTINUE	6730
		PNSP(1)=0.0	6740
		UO 260 K=1.150	
		1F(P#FD(K)=1.E=6) 260:253:253	6750
			6760
	253	C=WKU(K)	6770
		1F(C-E1WK) 255,260,260	6780
	255	PHSP(1)=PNSP(1)+PWKU(K)	
		CONTINUE	6790
			6800
		1F(PH5P(1)+10+) 308+308+301	6810
	301	MITTINIT + 2	6820
		NM=romx	6830
		00 304 K=1+IM	
		MA GAALUMTIA	6840

```
J=NN-K
                                                                                              6850
        IF (PNSP(J)) 302,302,308
                                                                                              6560
   302 NMX=NMX-1
   304 CONTINUE
                                                                                              -
   308 EMH=0.0
                                                                                              6890
       U0 310 J=1,100
EINH=EINH+(J=1)+PNSP(J)
                                                                                              6900
                                                                                              6910
   310 CONCINUE
                                                                                              6920
       514N=U.0
                                                                                              6930
        UO 312 J=1,100
                                                                                              6940
        UNE=J-1
                                                                                              6950
        STINESHNOUNE OUNE OPNSP (J)
                                                                                              6960
   312 CONTINUE
                                                                                              6970
        STINESORT (SINI-EIM) ENN)
                                                                                              6980
C CALCULATE SPECIAL INSPECTION MANHOURS AND NORM PER INTERVAL
                                                                                              6990
       LMSU=ENN+EMHS(1)+EMSD
        SMSU=ENN+SMHS(1)+SMHS(1)+SNN+SNN+EMHS(1)+EMHS)1)+SMSD
                                                                                              7010
        ENSUEENN+FIS (1)+ENSD
                                                                                              7020
        SNSU=ENN+SNS(1)+SNS(1)+SNN+SNN+ENS(1)+ENS(1)+SNSD
                                                                                              7030
   100 CONTINUE
                                                                                              7040
        SMSU=SUR ( (SMSD)
       SNSD=SORT (SNSD)
                                                                                              7060
    7070
C
                                                                                              7080
                                                                                              7090
       EMSU, SMSU
                       MEAN AND STD DEV FOR SPECIAL INSPECTION MANHOURS PER
                                                                                              7100
                                                                                              7110
       LNSU, SNSU
                       MLAN AND STU DEV FOR SPECIAL INSPECTION NORM PEN
                                                                                              7120
                       INTERVAL
                                                                                              7130
 1000 STUP
           . . . .
                         7150
                                                                                              7160
7170
   SUBHOUTINE HAVE
THIS MOUTINE DEFERMINES MANHOURS, NOPM, NOR, AVAILABILITY, AND
EFFECTIVENESS FOR EACH INTERVAL
COMMON 11NT,
IMPUT CATA
C
                                                                                              7150
C
                                                                                              7190
                                                                                              7200
C
                                                                                              7210
      1UEL1(10) . K1 . HSCT . MFOL (3) . NSCH) 3, 3) . NSPT . D1SP (60) . S1SP (60) . K1S (60) .
                                                                                              7220
                                                                                              7230
7240
7250
      2K.EMHI(3,3),5MHI(3,3),AN(3,3),RN(3,3),SNI(3,3),EMHS(60),SMHS)60),
3EHS(60),ShS(60),EMHP,SMHP,EMHB,SMHB,NI,KSET,ANU(3,60),BNU(3,60),
      4LMHU(GU), SMHU(GO), ENU(GO), SNU)60), ANAR(3,60), RNAB(3,60), ENWK)6U), SEFHW, SFHW, LSUW, SSOW, ELDW, SLDW, ATES, DIK(3,60), UMAS(3,60),
                                                                                              7260
7270
           DATA GENERATED BY PEPE
      6#KD(150),PWKU(150),EWKD,SWKD,EWKM,SWKM,EPFH,SPFH,EBPH,SRPH,NINT,
                                                                                              7280
      64(61) FX(61) EFHD, VFHD,
                                                                                              7290
C
      UNTA GENERATED BY SPIS
                                                                                              7300
                                                                                              7310
           DATA GENERATED BY INVL
                                                                                              7320
      BEMHU(3,3),5':10(3,3),EMD(3,3),SND(3,3),EED)3,3),SED)3,3),DD)3),
BUMAC(3),EACM(3),SACM(3),EACM(3),SACM(3),ACNS,
DATA GENERATED BY MPD
                                                                                              7330
7340
c
                                                                                              7350
      9EMHY(10), SMHY(10), EMHR(10), SMHR(10), EEMP)10), SEMP)10), DMP)10)
                                                                                              7360
7370
      9, EMHF (10), SI'HF (10)
       DOUBLE PRECISION TAVIDTAV
                                                                                              7375
       DIMENSION TAV(20) . PAV) 20) . KN) 2) . KC) 2) . PP) 2.2)
                                                                                              7380
C CALCULATE ATRCHAFT NORS PER WEEK
                                                                                              7390
       ACNS=0.0
                                                                                              7400
       DO 10 K=1+KSET
ACNS=ACNS+EN#K(K)
                                                                                              7410
                                                                                              7420
   10 CONTINUE
                                                                                              7430
       DO 900 1=1,NSCT
       EACM(1)=0.0
                                                                                              7450
        SACM(1)=0.0
                                                                                              7460
        EACN(1)=0.0
                                                                                              7470
        SACH(1)=0.0
                                                                                              7480
        UMAC(1)=0.0
C CALCULATE UNSCHEDULED MANHOURS AND NORM PER INTERVAL
UO 20 K=1.KSET
                                                                                              7500
                                                                                              7510
  7520
                                                                                              7530
7540
     11 IF (DLLI (11NT)-TSS) 12.12.13
                                                                                              7550
    12 UMA=UELT(11HI) + (ANU(1,K)+HNU) I.K) +DELT(11NT))
                                                                                              7560
        60 10 19
                                                                                              7570
    13 UMA=155+(ANH(1,K)+BNU(1,K)+TSS)
UMA=UMA+UMA5(1,K)+(UEL1(11NT)-TSS)
                                                                                              7580
                                                                                              7590
        60 10 19
                                                                                              7600
    14 1F(DELI((11NT)-TSS) 16:15:15
15 UMA=DLL1((11NT)+UMAS(1:K)
                                                                                              7610
                                                                                              7620
       60 TU 19
                                                                                              7630
    16 If(2,-0EL1(1INT)-TSS) 17-17-18
17 UMA=ULL1(1IN)) (ANU(1-K)+BNU)1-K)+DELI)IINT)+3-0)
                                                                                              7640
                                                                                              7650
    GO TO 19

18 UMA=UMAS()+K)+(2.+DEL1)[INT)-TSS)+TSS+ANU)[,K)/2.

UMA=UMA-UFL)(IINT)+(ANU(I+K)+BNU(I+K)+DEL1)[INT))
                                                                                              7660
                                                                                              7670
        60 10 19
                                                                                              7690
   120 UMA=UELI(IINT) + (ANU(I+K)+BNU(I+K)+DELI) IINT)+DIK(I+K))
```

```
19 EFHEENHU(F) +UMA
                                                                                                          7710
         SMH25URT (UMA+ (SMHU(K)+SMHU(K)+EMHU(K)+EMHU(K)))
                                                                                                          7720
        ENERGY (K) +UMA
SNESUPT (UMA+ (SNU(K)+SNU(K)+ENU(K)+ENU(K)))
                                                                                                          7740
7750
        EACM(1)=LACM(1)+EMH
SACM(1)=SACM(1)+SMH+SMH
                                                                                                          7760
7770
         EACH(()=EACH(()+EN
        SACR(()=SACH(1)+SNeSN
UMAC(1)=UNA+UMAC(1)
                                                                                                          7780
7790
    20 CONTINUE
                                                                                                          7800
         SACH (()=SONT (SACH(1))
                                                                                                          7610
        SACIACE) = SORT (SACIACE)
                                                                                                          7820
         APNEU.0
                                                                                                          7830
7840
C CALCULATE DEPENDABILITY PER INTERVAL
        UO JU KELIKSET
                                                                                                          7850
7860
        A=AHAB(I.K)
    IF(A) 22.22.23
22 ABN=ABN+u.5+UNAB((,K)+DELI(11NT)+D1K(1,K)
                                                                                                          7870
                                                                                                          7880
    GO (U 30
23 AR2=A+UAR(1+K)+DELI(11NT)+D1K(1+K)
                                                                                                          7890
                                                                                                          7900
7910
         (F(AB2) 24,24,26
                                                                                                          7920
7930
7940
    24 ARN=ABN+A+0.5
        60 10 30
    26 AGN=ABG+A+0.5+BNAB(1.K)+DEL1(11NT)+D1K(1,K)
    30 CONTENUE
                                                                                                          7950
7960
        FS=ATES+AHN
UD(1)=EXP(-F5)
C CALCULA(E TOTAL MANHOURS AND NOR PER INTERVAL
                                                                                                          7970
                                                                                                          7980
        NMENFOL (1)
                                                                                                          7990
        DO HYD J=1.000
EMHJ((,J)=EMH1(1,J)+EPFH+EBPH+EACM(1)+EMSD
                                                                                                          8000
                                                                                                          8010
      59HU([;J]=50LT(5MH([;J)+5MH([],J)+5PFH+5BPH+5RPH+5ACM([]+
15ACM([]+5M50+5M50)
ENI=AN([]+5M50+5M50)
IF(LL() 28:29:29
                                                                                                          8020
                                                                                                          8030
                                                                                                          8050
    28 LNI=0.0
23 LTM=LTHI+LACTI(1)+ENSU
                                                                                                          8060
8070
        SNM230II(1,J)+SN(((,J)+SACN(1)+SACN(1)+SNSD+SNSD
L'ID(1,J)=EN*+ACNS+(EWKU+EN1/168.)
52=SN(2+ACNS+ACNS+(S#KD+S#KD+SN1(1,J)+SN1(1,J)/28224.)
                                                                                                          8080
                                                                                                          8090
                                                                                                          6100
    SHU(1,J)=5QR((52)
CALCIJCATE MLAN AND STD DEV OF TOTAL HOURS PER INTERVAL
                                                                                                          8110
                                                                                                          6120
   164 LCT=109. . FWKO+ENT. (1.+ACNS/168.)
                                                                                                          8130
        5=511(1.1)
                                                                                                          6140
SCT=SORT(28224.05WKD05WKU+5050(1.+ACNS0ACNS/28224.))
C CALCUCA(E AVAILAR(LITY DESTRIBUTION
DIAVED.0520315H
                                                                                                          8160
7835
        NAVEZU
                                                                                                          8170
        TAV(1)=0.0
DO 170 L=2.1AV
(AV(L)=TAV(C-()+DTAV
                                                                                                          6180
                                                                                                          8190
                                                                                                          7870
8210
   (70 CONTINUE
         (F(SnD(1,J)) 500,500,526
                                                                                                          8220
   500 (F(Sc)) 501,501,510
501 UO 506 L=1,44V
IF(ECT+(1,-TAV(L))-EMD(1,J)) 503,504,504
                                                                                                          8230
                                                                                                          8250
                                                                                                          8260
   505 PAV(L)=1.0
        60 10 500
   504 PAVIL)=0.0
                                                                                                          8280
                                                                                                          8290
8300
8310
   506 CONTINUE
   510 HLCDEECT/(SCI+SCT)
        HKCU=HLCU+ES(
                                                                                                          8320
        NECUERKOU
                                                                                                          9330
                                                                                                          8340
        FACIERLOU-EHU((+J)
        DO SEU LETATAV
                                                                                                          8350
8360
         IF (HKCD-1.) 517,514,514
                                                                                                          8370
   514 SIM=1.0
                                                                                                          6360
                                                                                                          8390
        | [EHM= 1.0
        DO SIZ LISTINCO
                                                                                                          8400
8410
         SUM=SUM+JEHM
                                                                                                          8430
8440
   512 CONTINE
        PL=1.0-FAP(-FAC)+SUM
        SUMESUM+TERM+FAC/KLCU
PHE1. (I-E XP(-F AC) +SUM
                                                                                                          8450
8460
   PAV(L) =PL+(PH-PL)+(HKCD-KLCD)
GO (U 52U
517 PAV(L )=1.-EAP(-FAC)
                                                                                                          8470
8480
                                                                                                          8490
8500
   520 CONTINUE
        60 TU 600
                                                                                                          8510
   526 (F(SCT) 528:328:540
528 RL(W=LND([:J)/(SND(1:J)+SND(1:J))
                                                                                                          8520
                                                                                                          8530
        HKNOSHLNU+E'IU(1,J)
        REMOSARNO
                                                                                                          8550
```

```
KENU=KLNU=1
FAC1=HLNU+EC1
                                                                                                                 8560
        00 536 L=1.NAV
FAC=FACT+(1.-TAV(L))
                                                                                                                  8580
                                                                                                                  8590
  1F(KEND) 534,530,530
530 SUM=1.0
                                                                                                                 8600
8610
         FE.HM=1.0
                                                                                                                 8620
8630
        UO 532 LI=1+KLND
TERM=TEPM+FAC/LI
         SUM=SUM+TERM
                                                                                                                 8650
  532 CONTINUE
                                                                                                                  8660
        PL=SUM+EAP(-FAC)
                                                                                                                  8670
         SUMSSUM+TERMAFAC/KLND
                                                                                                                  8680
         PH=SUM+EXPI-FACT
  PAV(L )=PL+(PH-PL)+(RKND-KLNO)
GO 10 536
PAV(L )=LXP(-FAC)
                                                                                                                  8700
                                                                                                                  8710
                                                                                                                  8720
  536 CONTTINE
                                                                                                                  8730
  540 RLCU=ECT/(5C1+SCT)
RKCU=ECT+PLCU
RLND=END(1+J)/(SND(1+J)+SND(1+J))
                                                                                                                  8750
                                                                                                                 8760
                                                                                                                  8770
         HKHU=END(1,J) #RLND
                                                                                                                 8780
        KN(1) = RKNC
                                                                                                                  8790
        KN(2)=KN(1)+1
KC(1)=RKCD
                                                                                                                  8800
                                                                                                                 8810
         KC(2)=KC(1)+1
                                                                                                                  8820
         1F(KH(1)) 341,541,542
                                                                                                                  8830
   541 KN(1)=1
  HKNU=1,
542 IF(KC(1)) 543+543+544
                                                                                                                  AASO
   543 KC(1)=1
                                                                                                                  8870
                                                                                                                  8880
        HKCD=1.
  544 DO 560 L21+HAV
TOP=HLHP+(1.-TAV(L1)
DEH=TOP/(TOP+RLCD)
                                                                                                                  8890
                                                                                                                  8900
        UG 553 LN=1.2
KEND=KN(LN)-1
                                                                                                                  8920
                                                                                                                  8930
         UO 552 LC=1.c
                                                                                                                  8940
        KK=KC(LC)
                                                                                                                  8950
         C=(HLCD/(TOP+RLCD))++KK
                                                                                                                  AGTA
                                                                                                                  8980
         1F (KLIN) 550,550,546
  546 UO 548 LI=1+KEND
C=C+UEN+(FK+LI-1)/LI
                                                                                                                  8990
                                                                                                                  9000
         SUM=SUF+L
                                                                                                                  9010
   548 CONTINUE
                                                                                                                  9020
  550 PP(LN+LC)=5UM
552 COH(1HUF
                                                                                                                  9030
                                                                                                                  9040
   553 CONTINUE
                                                                                                                  9050
        UKC=KKCh=KC(1)
PL=PP(1,1)+(PP(1,2)=PP(1,1))+DKC
PAV(L)=TL+(PP(2,2)=PP(2,1))+DKC
PAV(L)=TL+(P)=PL)+(RKND=RN(1))
                                                                                                                  9060
                                                                                                                  9080
                                                                                                                  9090
  DEO CONTINUE CALCULATE EFFECTIVENESS MEAN AND STD. DEV.
                                                                                                                  9100
                                                                                                                  9110
  500 DO 40 L=1.NAV
TAV(L)=TAV(L)+UD(I)
                                                                                                                 9120
    40 CONTINUE
  CALL DMNDV(TAV.PAV.NAV.EED(1.J).SED(1.J))
890 CON)1NUE
                                                                                                                  8240
                                                                                                                  9160
   900 CONTINUE
                                                                                                                  9170
    9180
                                                                                                                  9190
                                                                                                                  9220
                                                                                                                  9240
                                                                                                                  9260
         SUUROUTINE MPD
                                                                                                                  9210
    STUROUTINE MAD CALCULATE MAINTENANCE PROGRAM MANHOURS, NOR, DEPENDABILITY, AND EFFECTIVEHESS - THE OUTPUT OF THE MODEL COMMON 11NT, 11NPUT TATA 1DEL1(10),KI:NSCT.NFOL(3),NSCH(3,3),NSPT:DISP(60),SISP(60),KIS(60),
                                                                                                                  9280
č
                                                                                                                  9290
                                                                                                                  9300
                                                                                                                  9310
       2H+LMHI(3,3)+SMHI(3,3)+AN(3,3)+AN(3,3)+SNI(3,3)+EMMS(60)+SMMS(60)+
3EH5(0)+SNS(0)+EMHP+SMMP+EMMB+SMMB+NI+KSET+ANU(3,60)+BNU(3,60)+
4EMHI(60)+SMHU(60)+ENU(60)+SNU(60)+ANAB(3,60)+BNAB(3,60)+ENWK(60)+
                                                                                                                  9330
                                                                                                                  9340
                                                                                                                  9350
       SLFIIW, SFHWYESUW, SSOWYELDW, SLDW, AIES, DIK (3,60), UMAS (3,60) (
UATA GENERATED BY PEPF
                                                                                                                  9360
C
                                                                                                                  9370
       6#FU(150),PWKU(150),EWKD,SWKD,EWKM,SWKM,EPFH,SPFH,EBPH,SBPH,NINT,
6X(61),FX(61),EFHU,VFHD,
UA(A GFNCHATED BY SPIS
                                                                                                                  9380
                                                                                                                  9390
C
                                                                                                                  9400
       7EMSU. SESULENSO, SHSD.
             UATA GENERATED BY INVL
                                                                                                                  9420
```

c

```
8EMHU(3,3),5MHD(3,3),END(3,3),SND(3,3),EED(3,3),SED(3,3),DD(3),
8UMAC(3),EACM(3),5ACM(3),EACN(3),SACN(3),ACNS,
                                                                                                          9430
       ()ATA GENERATED BY MPD
9EMHY(10),5MHY(10),ENHR(10),5NHR(10),EEMP(10),SEMP(10),DMP(10)
                                                                                                          9450
9460
C
       9.EMHF (10).SMHF (10)
UIMENSION T(50).P(50)
                                                                                                         9470
        A=U.U
                                                                                                          9490
        LMUMEU.O
                                                                                                          9500
         SMHF=U.0
                                                                                                          9510
        ENMP=0.0
                                                                                                          9520
        SNMP=0.0
                                                                                                          9530
        U =0.0
EE =0.0
SE =0.0
                                                                                                          9540
                                                                                                          9550
9560
        SUM1=0.0
                                                                                                          9570
        SUM2=0.0
UO 10 1=1.NSCT
                                                                                                          9580
                                                                                                          9590
        HM=H+UL(I)
                                                                                                          9600
                                                                                                          9610
        HN=H5CH(1.J)
                                                                                                          9620
        EMINEEMIM+EMID(1.J) ONN
SMINESMHM+SINID(1.J) OSMHD(1.J) ONNONN
                                                                                                          9630
                                                                                                         9640
        SHIMPELINMP+SHU(1+J)+SND(1+J)+NH+NN
                                                                                                          9650
        9660
                                                                                                          9670
                                                                                                          9680
                                                                                                         9690
        ENI=AN(1, J) +UN(1, J) +DEL1(11NT)
                                                                                                          9700
        IF (E1.1) 6.8.0
                                                                                                         9710
       LNI=U.0
        SUM1=SUM1+NSCH(1,J)*EN1*(1.+ACNS/168.)
SUM2=SUM2+NSCH(1,J)*NSCH(1,J)*SN1(1,J)*SN1(1,J)*(1.+ACNS*ACNS/
                                                                                                         9730
9740
                                                                                                          9750
        CONTINUE
                                                                                                          9760
    10 CONTINUE
        SMMR.=SORT (SMM)
SMMP=SORT (SMMP)
                                                                                                          9780
9790
        SEMP(IIII)=SURT(SE/(NINT+NINT))
                                                                                                          9800
        EEMP(IINT)=EC/NINT
UMP(IINT)=D/HINT
                                                                                                          9810
                                                                                                          9820
C CALCULATE MANHOURS PER YEAR
                                                                                                          9630
                                                                                                          9840
        MAZDO
        00 20 I=1.NA
                                                                                                          9850
        T(1)=1+400.0
E=EM(M-T(1)+(EWKM/52.+SUM1/8736.)
S=SMH445MMM+!(1)+T(1)+(SWKM+SWKM/2704.+SUM2/76317696.)
                                                                                                          9860
                                                                                                          9880
        S=SURTIS)
                                                                                                          9890
    IF(5) 13.13.12
12 CALL MAL(A.E.S.PI)
                                                                                                          9900
                                                                                                          9910
                                                                                                          9920
        P(1)=PI
    00 TO 20
13 1F(L) 16:16:15
    15 P(I)=0.0
                                                                                                          9950
                                                                                                          9960
    60 TO 20
                                                                                                          9970
    20 CONTINUE CALL MINDY (T.P. MA, EMH, SMH)
                                                                                                          9990
        EMMY (IIN) ) =E AM
                                                                                                         10000
                                                                                                         10010
        SMHY (1111) = SHH
C CALCULATE MATHOURS PER MAINTENANCE PROGRAM
                                                                                                         10020
        EFHIT=NINI+EFHD
                                                                                                         10030
                                                                                                         10040
        VEHN=NINI . VEHD
C CALCULATE MANHOURS PER FLIGHT HOUR
                                                                                                         10050
        UO 40 I=10NA
T(1)=2.01
E=EMEM-T(1)0EFHM
S=SMEM0SMHM+!(1)0T(1)0VFHM
                                                                                                         10060
                                                                                                         10070
                                                                                                         10050
                                                                                                         10090
    S=544T(5)
1F(5) 33:33:32
32 CALE NML(A:E:5:P1)
                                                                                                        10100
                                                                                                         10120
        P(1)=P1
                                                                                                        10130
    33 1F(E) 35.35.36
35 P(I)=1.0
60 (0 40
36 P(I)=0.0
                                                                                                         10150
                                                                                                         10160
                                                                                                         10170
                                                                                                         10180
                                                                                                         10190
    40 CONSTINE
        CALL MIDY (T.P.NA.EMM.SMH)
ENHF (ZINY) = ENH
SMHF (ZINY) = SNH
                                                                                                        10200
                                                                                                         10220
C CALCULATE NUR HOURS PEN HOUR
                                                                                                         10230
        NA=2U
                                                                                                         10240
                                                                                                         10250
        U0 30 1=1+NA
        1(1)=1+0,05

E=E+HP-T(1)+(168,•EWKM+SUM1)

5=5HPP+SNMP+T(1)+T(1)+(28224,•SWKM+SWKM+SUM2)
                                                                                                         10270
                                                                                                         10280
                                                                                                         10290
        5=50HT(5)
1F(5) 23,23,22
                                                                                                         10300
```

```
22 CALL NML (A.E.S.PI)
                                                                                                                       10310
                                                                                                                       10320
                                                                                                                       10330
    60 TO 30
23 1F(E) 26,26,25
25 P(1)=0.0
                                                                                                                       10340
         UO 10 30
     26 P(1)=1.0
                                                                                                                       10370
     30 CONTINUE
         CALL MIDY (I+P+NA+EN+SH)
                                                                                                                       10390
                                                                                                                       10400
          STHIK (IIN1)=5"
                                                                                                                        10410
         RETURN
                                                                                                                       10420
                                                                                                                       10430
         ENU
          SUBROUTINE WAL (A.E.SU.P)
                                                                                                                       10440
              MUN TINE,
INPUT DATA
          COMMUN
C
                                                                                                                        10460
        1Dtl1(10),KI+SCT,NFOL(3),NSCH(3,3),NSPT,DISP(60),SISP(60),KIS(60),
2R.EMHI(3,3),SMHI(3,3),AN(3,3),BN(3,3),SNI(3,3),EMHS(60),SMHS(60),
3ENS(60),SNS(60),EMHP,SMHP,EMHB,SMHB,NI,KSET,ANU(3,60),BNU(3,60),
                                                                                                                       10470
                                                                                                                       10480
                                                                                                                        10490
        3EN3(00);3H01;3EN4(30);5EN4(60);5NU(60);NAB(3,60);BNAB(3,60);EN4(60);
5EFH4;5FH4;ESU4;SSO4;ELO4;SLU4;AIES;DIK(3,60);UMAS(3,60);
                                                                                                                       10500
                                                                                                                       10510
        DATA GENERATED BY PFPF
6*KU(15U), PWKU(150), EWKU, SWKO, EWKM, SWKM, EPFH, SPFH, EBPH, SPPH, NINT,
6X(61), FX(61), EFHD, VFHD,
1/ATA GENERATED BY SP1S
C
                                                                                                                        10520
                                                                                                                       10530
C
                                                                                                                       10550
    17ATA GEIR-MATED BY SP1S

7LMSD,5MSD,EMSD,5MSD,

DATA GENERATED BY INVL

8LMHU(3,3),SHRID(3,3),END(3,3),SND(3,3),EED(3,3),SED(3,3),DD(3),

8UMAC(3),6ACA(3),5ACM(3),EACN(3),SACN(3),ACNS,

DATA GENERATED BY MPD

9LMHY(10),SMHY(10),ENHR(10),SNHR(10),EEMP(10),SEMP(10),DMP(10)

9.EMH+(10),SMHF(10)

7.EMH+(10),SMHF(10)
                                                                                                                       10560
                                                                                                                       10570
C
                                                                                                                        10590
C
                                                                                                                       10600
                                                                                                                       10610
                                                                                                                        10620
                                                                                                                       10630
         T=(A-E)/SD
IF(1-X(1)) 30:40:50
                                                                                                                       10640
                                                                                                                       10650
                                                                                                                       10660
     30 P=0.0
     HETUH!
                                                                                                                       10670
                                                                                                                       10680
          RETURN
                                                                                                                        10690
     50 00 50 [=2,6]
IF(T-x(1))52,54,56
                                                                                                                       10700
     52 P=Fx(1-1)+(Fx(1)-Fx(1-1))+(T-X(1-1))/(x(1)-x(1-1))
                                                                                                                       10720
         RETURN
                                                                                                                       10730
     54 PEFX(I)
RETURN
                                                                                                                       10740
                                                                                                                       10750
     56 CONTINUE
                                                                                                                       10760
                                                                                                                       10770
         P=1.0
          HETURN
                                                                                                                        10740
          4 (41)
                                                                                                                       10790
SUBROUTINE MADV(T+P+N+BART+SDEV)

C THIS HOUDING CALCULATES THE MEAN AND STANDARD DEVIATION OF T DIMENSION T(150)+P(150)
                                                                                                                       10800
                                                                                                                       10810
          BART=T(1)+P(1)
                                                                                                                        10830
         DO 10 I=2+N
BART=BART+T(I)+(P(I)-P(I-1))
                                                                                                                       10840
                                                                                                                       10850
     TO CONTINUE
                                                                                                                        10860
         SOEV=P(1)+(T(1)-BART)++2
UO 20 1=2+N
                                                                                                                       10870
                                                                                                                        10880
          SDE V=SUEV+(P(1)-P(1-1))+(T(1)-BART)++2
                                                                                                                       10890
                                                                                                                        10900
     20 CONCINUE
          IF(AHS(SUEV-.5E-10)) 30,30,40
                                                                                                                        10910
                                                                                                                       10920
     30 SDEV=0.0
                                                                                                                        10930
     40 SDEV=SORT (SDEV)
                                                                                                                       10940
          RETURN
         FUU
    SUBROUTINE MNDO(T.P.N.BART.SDEV)
THIS ROUTINE CALCULATES THE MEAN AND STANDARD DEVIATION OF T
USING THE PROBABILITY DENSITY FUNCTION
                                                                                                                       10970
                                                                                                                        10980
                                                                                                                        tagan
         DIMENSION T(150) P(150)
BAH1=0.0
                                                                                                                       11000
                                                                                                                       11010
         SDEv=0.0
DO 10 I=1.N
bAR(=HAR]+T(I)+P(I)
                                                                                                                       11020
                                                                                                                       11040
         SOLV=SOEV+) (1)+T(1)+P(1)
                                                                                                                       11050
     10 CONTINUE
                                                                                                                       11060
          SHEVESHIEV-WART +RART
                                                                                                                       11070
          IF (AUS (SUE V-. SE-10)) 30.30.40
                                                                                                                       11000
    30 SULVEU.0
                                                                                                                       11090
         HE TUHII
                                                                                                                       11100
    40 SUEVESORT (SUEV)
                                                                                                                       11110
                                                                                                                       11130
SUBROUTINE UHNOV(T,P.N.HART,SDEV)
C THIS HOUTINE CALCINATES THE MEAN AND STANDARD DEVIATION OF T
                                                                                                                       10060
                                                                                                                        10070
         DOUBLE PRECISION T
                                                                                                                       10075
         UIMENSION T(150) . P(150)
                                                                                                                       10080
```

```
DART=1(1)*P(1)
      UO 10 1=2.N

bART=BART+T(1).(P(1)-P(1-1))
   10 CONTINUE
       SUEV=P(1)+(1(1)-BART)++2
       UO 20 1=2.N
       SDEV=SDEV+(P(1)-P(1-1))+(T(1)-BART)++2
   20 CONTIDUE
       1F(AUS(SUEV-.5E-10)) 30.30.40
   30 SDE v=0.0
   HETURY
40 SILVESORT (SULV)
       KETUKN
       FIID
          HEGUINED PLACE FURTHAN BCD SOURCE BEFORE THIS CARD
//LKED.SYSPRINT DU SPACEX[CYL,[1:1]]
//LKED.SYSIN UD DATA.SPACEX[THK.[5:5]]
/*
//CHG.FTU5F001 DU DATA.SPACF>ECYL.E1.133
SAMPLE RUN - INPUT DATA BASED ON RESUL'S FOR 11 NON-150 AIRCRAFT SAMPLE
  4.88000 2.00000
0.79000 1.92000
                        3.02000
                                    1.05200
2.74000
                                                            1,04600 0.00729
                                                 0.00000
  6 2 3 4 4
25.00000 30.00000 35.00000 40.00000 45.00000 50,00000
  43.20000
             26.70000
                          0.00000
                                      0.00000
                                                  0.00000
   0.00161
              0.00002
                          0.00000
                                      0.00000
                                                  0.00000
   0.00000
                          0.00000
             -0.00002
-0.00336
1.00000
   0.01488
                          0.00000
                                      0.00000
   0.24418
                                      1.00000
                          0.00000
                                                  0.00000
   1.00000
                          1.00000
    .00080
                .00000
                            .00744
                                       .12209
  10
43.20000
             26.76060
                                      0.00000
                                                  0.00000
                          0.00000
   0.02032
              -0.00030
                          0.00000
                                      0.00000
                                                  0.00000
             -0.00030
   0.01860
                          0.0000
                                      U.00n00
                                                  0.00000
                                      0.00000
   0.09396
                          0.00000
                                                  0.00000
             -0.00106
   0.10571
                          0.00000
                                      0.00000
                                                  0.00000
                                      1.00000
                          1.00000
   1.00000
              1.00000
    .01016
                .00933
                           . 04698
 433.90000 417.00000 219.70000
                                      5.00000 261.30000
  30.90000 39.40000
                        21.90000
                                      0.33000 38.70000
   0.02016 -0.00030
0.01842 -0.00030
   0.01811
             -0.00159
-0.01105
                          0.00000
                                      0.00000
                                                  0.00000
                                     1.00000
.14616
14.50000
19.70000
5.40000
   3.00000
              3,00000
                          3.00000
                            .00906
   .01008
              0.84000
                          5.00000
                                                  0.00190
                         13,30000
3.30000
2.60000
              3.97000
                                                  0.27100
    3.50000
   8.20000
                                                0,09800
50,00000
13,90000
   1.70000
              1.64000
                                      6.80000
  7.70000
             6.65000
                          0.00000
                                      0.00000
                                                            25,80000
14,10000
                                                29.80000
25,70000
   6.60000
               7.23000
                          0.00000
                                      0.00000
                                                            63,80000
   3.50000
              9.10000
                          0,00000
                                      0,00000
                                                            25,30000
4449
```

10090

10100

10120

10130

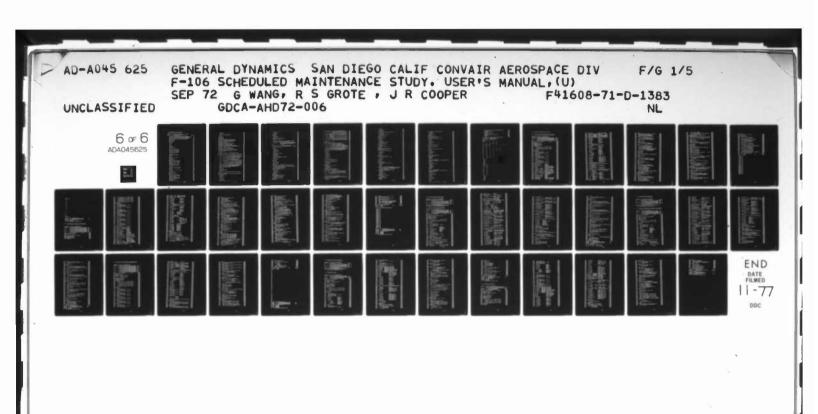
10140

10160

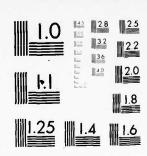
10180

10190

10220



6 of 6 ADA045625



MICROCOPY RESOLUTION TEST CHART
 NATIONAL BURGLAU OF STANDARDS 1963 A

6.14 NETWORK ANALYSIS MODEL

```
97V JOU 01:: G. WANG. ::PKTY>02 X3408
97V LXEC P9645G:PARM.ASSY>[MAP:LIST,BCO];
PARTICLKED>:LIST:XREF::TIME>02.ACCT>D35323007
(**SYSIN DU DATA;SPACE>LCYL-(1:1)*
HETWORK AIALYSIS MOUEL-- 37U
COMHON: THEM (20):PNEM(20):NNEM:TMHE(20):PMHE(20):NMHE;NBR:TMH(150;
//19897V JOU
//C9897V LXEC
                                                                                                                         c
                                                                                                                           1440 CDS
                                                                                                                                      20
        1201, PMH(150:20), NMH(150), TSP(150:20), PSP(150:20), NSP(150),
2FHK(150), K(149), L(149), M(149), TNOR(20), PNOR(20), NNOR, BARN, DEV, TMHI
3(20), PMH1(20), NMH1, FM, BARM, DEVM, BNE, UNE, BMHE, DMHE, LKFX(150)
                                                                                                                                      30
                                                                                                                                      40
                                                                                                                                      50
          DIMENSION HEAD(20)
READ 9999 1H FIRST AND LAST CARD FOR END OF FILE TEST
READ (5:99) LOF9
                                                                                                                                      62
C SET ORIGINAL VALUES
1 DO 40 I=1.20
                                                                                                                                      70
                                                                                                                                      80
          TMH1(1)=0.0
                                                                                                                                      90
          PMH1(1)=0.0
                                                                                                                                    100
     40 LONGINUE
                                                                                                                                    110
          HPH1=0
          FI'=1.0
                                                                                                                                    130
          LUL=u.O
                                                                                                                                    140
          UIILEU.II
                                                                                                                                     150
          EMOR. =0.0
                                                                                                                                    160
          UNITE O. 0
                                                                                                                                    170
      READ(5:103) HEAD
1F(HEAD(1)-EUFY) 3:2:3
2 CALL EOJMSG
                                                                                                                                    190
                                                                                                                                    202
          CALL EXII
      S HEAD(5.100) (GR. NINEM. NMHE

READ(5.101) (GREM(T).1=1.NHEM)

READ(5.101) (GREM(T).1=1.NHEM)

READ(5.101) (GREM(T).1=1.NHE)
                                                                                                                                    210
                                                                                                                                    220
                                                                                                                                    230
                                                                                                                                    240
          HEAU(5,101) (PMHE(1),1=1,NMHE)
HEAU(5,102) (LKFX(1),1=1,NBR)
                                                                                                                                    250
                                                                                                                                    260
          REAU(5,101)(FFR(1),1=1,NBR)
REAU(5,102)(GMH(1),1=1,NBR)
DO 10 1=1,NBR
                                                                                                                                    280
                                                                                                                                    290
          NI=WMH(I)
                                                                                                                                    300
          READ(5:101)((MH(1:J):J=1:N1)
READ(5:101)(PMH(1:J):J=1:N1)
                                                                                                                                    310
     10 LONI THUE
                                                                                                                                    330
          1-1441=114
                                                                                                                                    340
          141.1=1 02 OU
                                                                                                                                    350
     REAU(5.102) K(1), L(1), M(1)
20 CONTINUE
                                                                                                                                    360
          WHITE (6.300) HEAD
                                                                                                                                    380
                                                                                                                                    390
          WRITE(6.301)
          1F (NNEM) 60,00,50
                                                                                                                                    400
     50 WRITE(6.302)
WRITE(6.303) (THEM(1).1=1.NNEM)
WRITE(6.304) (PHEM(1).1=1.NNEM)
                                                                                                                                    410
                                                                                                                                    420
                                                                                                                                    430
          WRITE(6,305)
WRITE(6,303) (TMHE(1),1=1,NMHE)
WRITE(6,304) (PMHE(1),1=1,NMHE)
                                                                                                                                    440
450
                                                                                                                                    460
     60 BR116 (6.307)
                                                                                                                                    470
          WRITE (6. JOH) NOR
                                                                                                                                    480
          WKITE (6+309) (EKFX(1)+1=1+NBF)
                                                                                                                                    490
          WHITE(6:3)0) (FHR(1):1=1:NBR)
                                                                                                                                    500
          WP1(L(6:311)
UO 30 1=1:00k
                                                                                                                                    510
                                                                                                                                    520
          141=1#H(1)
          WRITE(6,312) 1,(TMH(1,J),J=1,N1)
WRITE(6,313) 1,(PMH(1,J),J=1,N1)
                                                                                                                                    540
                                                                                                                                    550
                                                                                                                                    560
570
     30 CONTINUE
          WH1(E(6:314)
          N1=NUH-1
                                                                                                                                    580
          WHITE(6.3)5) (1.K(1).L(1).M(1).1=1.N1)
                                                                                                                                    590
          CALL NAMU
                                                                                                                                    600
          WRITE(6.200) /
1F(NNEM) 64.04.62
                                                                                                                                    610
                                                                                                                                    620
    62 WRITE(6.302)
#PITE(6.300) BHE, DNE
                                                                                                                                    630
                                                                                                                                    640
          WP17E (6:305)
          WHITE (6.300) BMHE, DMHE
                                                                                                                                    660
670
680
     64 mRITE(6.201)

WHITE(6.303) (THOR(1).1=1.NNOR)

WHITE(6.304) (PNOR(1).1=1.NNOR)
                                                                                                                                    690
700
710
         WRITE(6:306) BARN, DEV
WRITE(6:202)
          WRITE(6.303) (TMHI(1),1=1.NMHI)
          WP1(L(6,304) (PMH1(1),1=1,NMH1)
                                                                                                                                    730
          WRITE (0.300) RARM, DEVM
                                                                                                                                    740
750
          1F (NNLM) 1.1.80
     80 WRITE (6,203)
                                                                                                                                    760
770
          WRITE (6.204) FM
          WRITE(6,310) (FHR(1),121,NBR)
```

```
WRITE (6,205)
                                                                                                                                                                                                                                                                                                                 790
                         DO 90 I=1+feit
                                                                                                                                                                                                                                                                                                                 500
                        NI=HHH(1)
                        WP11L(6,312) 1,(TMH(1,J),J=1,NI)
aK1(L(6,313) I,(PMH(1,J),J=1,NI)
                                                                                                                                                                                                                                                                                                                 820
                                                                                                                                                                                                                                                                                                                 830
             90 CON 11HIC
                                                                                                                                                                                                                                                                                                                 850
                        60 16 1
         100 FORMAT(312)
        99 FORMA1 (#4)
101 FORMAT(#210.0)
                                                                                                                                                                                                                                                                                                                 865
                                                                                                                                                                                                                                                                                                                 870
        102 FORMAT(4012)
103 FORMAT(2044)
                                                                                                                                                                                                                                                                                                                 890
        200 FORMAI(1H0.10%, 11HOUTPUT DAIA)
201 FORMAI(1H0.10%, 25HCALCULATED INSPECTION NORM)
202 FORMAI(1H0.10%, 35HCALCULATED INSPECTION MANHOURS)
                                                                                                                                                                                                                                                                                                                 910
         203 FORMAT(1110+1UX+20HADJUSTED BRANCH DATA/)
                                                                                                                                                                                                                                                                                                                 930
        205 FORMAT(110-10X-24HADJUSTED BRANCH MANHOURS)
                                                                                                                                                                                                                                                                                                                 940
950
       SOU FORMAT(1H1+TUX+20A4)
SOI FORMAT(1H0+TUX+10H1HPUI DATA)
                                                                                                                                                                                                                                                                                                                960
970
       301 FORMAT(IH0:10X:10HINPUI DATA)
302 FORMAT(IH0:10X:25HEMPIRICAL INSPECTION NORM)
303 FORMAT(IH0:4HT = :10FI0:2/5X:10FI0:2)
304 FORMAT(IH0:4HF = :10FI0:2/5X:10FI0:2)
305 FORMAT(IH0:10X; 29HEMPIRICAL INSPECTION MANHOURS)
306 FORMAL(IH0:10X; 19HBRANCH DATA/)
307 FORMAL(IH0:10X; 19HBRANCH DATA/)
308 FORMAT(IH0:10X; 19HBRANCH DATA/)
                                                                                                                                                                                                                                                                                                                 990
                                                                                                                                                                                                                                                                                                             1000
                                                                                                                                                                                                                                                                                                              1010
                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                             1030
        308 FORMAT(III + OHURR = +IX.III)
309 FORMAT(II + 7HLKFX = +10110/(8X,10110))
310 FORMAT(II + OHERR = +IX.10F10.2/(8X,10F10.2))
                                                                                                                                                                                                                                                                                                              1040
                                                                                                                                                                                                                                                                                                              1050
                                                                                                                                                                                                                                                                                                             1060
         311 FORMATCHIO, TUX-15HBRANCH PANHOURS)
                                                                                                                                                                                                                                                                                                              1070
         311 FORMAT(1140-10%-15MMANCH PANNOURS)
312 FORMAT(1140-441MM(+13+6H+J) = +4%-9F10-2/(8%-10F10-2))
313 FORMAT(1140-441PMH(+13+6H+J) = +4%-9F10-2/(8%-10F10-2))
                                                                                                                                                                                                                                                                                                              1080
                                                                                                                                                                                                                                                                                                             1090
         314 FORMA) (100, 10HNETWORK UEFINITION/)
                                                                                                                                                                                                                                                                                                             1100
         315 FORMATCIN +4IIu)
                                                                                                                                                                                                                                                                                                              1110
                                                                                                                                                                                                                                                                                                             1120
                        SHEROUTINE HAMU
                                                                                                                                                                                                                                                                                                              1130
       THIS ROUTING IAM OF THE FOLLOWING VARIABLES HAVE BEEN CALCULATED OR REA
                                                                                                                                                                                                                                                                                                            1140
c
                   HAT THE CALLING PHOGHAM

THEM (1), PREATE VALUES OF TIME AND PROBABILITY DEFINING EMPIRIC DISTRIBUTION OF NORM HOURS FOR THE INSPECTION MEET THE HUMPLE OF VALUES IN THE THEM-PNEM DISTRIBUTION VALUES OF MANHOURS AND PROBABILITY DEFINING EMPISIFIED TO SHE LUMBER OF VALUES IN THE THEE-PMHE DISTRIBUTION OF MANHOURS FOR THE LOOK PHASE WHEN THE LUMBER OF VALUES IN THE THEE-PMHE DISTRIBUTION OF MANHOURS FOR BRANCH OUTSTRIBUTION OF MANHOURS FOR BRANCH OUTSTRIBUTION OF MANHOURS FOR BRANCH IN THE MUMPER OF VALUES OF HOURS AND PROBABILITY DEFINING USTRIBUTION FOR BRANCH OF VALUES OF THE THE PMH DISTRIBUTION FOR BRANCH OF MANHOURS FOR BRANCH OF MA
                                                                                                                                                                                                                                                                                                              1160
            IN BY THE CALLING PHOGHAM
                                                                                                                                                                                                                                                                                                             1170
                                                                                                                                                                                                                                                                                                            1180
1190
                                                                                                                                                                                                                                                                                                             1200
                                                                                                                                                                                                                                                                                                              1210
                                                                                                                                                                                                                                                                                                             1220
                                                                                                                                                                                                                                                                                                              1230
                                                                                                                                                                                                                                                                                                            1240
1250
                                                                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                                                                                                            1270
                                                                                                                                                                                                                                                                                                              1280
                                                                                                                                                                                                                                                                                                            1290
1300
                      1310
                                                                                                                                                                                                                                                                                                            1320
                                                                                                                                                                                                                                                                                                             1330
                                                                                                                                                                                                                                                                                                            1340
1350
                    I20) + PMH(150+20) + NMH(150+35F(150+20) + PSP(150+20) + NSP(150) + SP(150+20) + NSP(150) + TMHI 3(20) + PNOR(20) + NOR(20) + NOR(20) + NOR(20) + NOR(20) + PNOR(20) + PN
                                                                                                                                                                                                                                                                                                              1360
                                                                                                                                                                                                                                                                                                            1370
                      UIMENSION 11(20), 72(20), 73(20), PI(20), P2(20), P3(20)
                                                                                                                                                                                                                                                                                                             1380
C CALCULATE SPAN TIME FOR EACH BRANCH
                                                                                                                                                                                                                                                                                                              1390
                      00 10 1=1.Hdk
H1=064(1)
                                                                                                                                                                                                                                                                                                            1400
                                                                                                                                                                                                                                                                                                             1410
                                                                                                                                                                                                                                                                                                            1420
1430
1440
1450
                       NSP(1)=HMH(1)
                      U9 8 J=[+11]
ISP(1+J)=TMH([+J)+FHR([)
                      PSP(1.J)=PMH(1.J)
               8 CONTINUE
                                                                                                                                                                                                                                                                                                             1460
                                                                                                                                                                                                                                                                                                            1470
1480
            TO CONTINE
          TRANSFER TO 200 IF AN EMPIRICAL NORM DISTRIBUTION HAS BEEN INPUT
                                                                                                                                                                                                                                                                                                            1490
1500
1510
                        1F (unar M)
                                                            100+100+200
          CALCIDATE INSPECTION NORM AND MANHOURS BASED ON INPUT TASK MANHOURS FIND INSPECTION MANHOURS
                                                                                                                                                                                                                                                                                                            1520
1530
       100 NI=Hent(I)
                      UO 110 I=[, 41
11([):TMH(1 ,1)
PI(1):PMH(I ,1)
                                                                                                                                                                                                                                                                                                            1540
1550
                                                                                                                                                                                                                                                                                                            1560
1570
1580
       110 CONTTINE
                      UO 129 1= 2+1.8R
                        11) Innat=54
                                                                                                                                                                                                                                                                                                              1590
                      114 J=1+42
T2(J)=14H(I+J)
                                                                                                                                                                                                                                                                                                              1600
                                                                                                                                                                                                                                                                                                             1610
                      P2(J)=PMH(1:J)
       114 CONTILUE
                                                                                                                                                                                                                                                                                                             1630
                       CALL CONV(P1.P2.P3.T1.T2.T3.HI.N2.N3)
```

```
1650
               1F (HBR-1) 122.122.116
                                                                                                                                                                                                             1660
1670
1690
     116 NI=1.3
                DO 118 J=1.81
               TI(J)=T3(J)
P1(J)=P3(J)
                                                                                                                                                                                                             1690
1700
    118 CONTINUE
                                                                                                                                                                                                              1710
     122 MMHI=N3
                                                                                                                                                                                                              1720
               UO 124 I=1+44HI
}MHI(1)=13(I)
                                                                                                                                                                                                             1730
                                                                                                                                                                                                              1740
                                                                                                                                                                                                             1750
1760
                PMHI (1)=P3(1)
    124 CONTINUE
CALL MNDy (T.4:11-PMHI-HMHI-HARM-DEVM)
                                                                                                                                                                                                             1770
1780
1790
       CALCULATE INSPECTION NORM
      1800
                                                                                                                                                                                                              1810
                                                                                                                                                                                                               1820
                                                                                                                                                                                                              1830
                                                                                                                                                                                                              1840
                                                                                                                                                                                                              1850
1860
     1870
                                                                                                                                                                                                              1880
       CALCULATE AN ESTIMATE OF INSPECTION NORM AND MANHOURS CALCULATE FST1% ATE OF LOOK PHASE MANHOURS BASED ON 1MPUT TASK MANHOUR
                                                                                                                                                                                                              1900
                                                                                                                                                                                                              1910
     200 UO 202 1=1+10R
                                                                                                                                                                                                               1920
                                                                                                                                                                                                              1930
                                                                                                                                                                                                              1940
                1F(LKFX(1)-1) 204.204.202
     202 CONTINUE
                                                                                                                                                                                                              1950
                STOP
                                                                                                                                                                                                              1960
                                                                                                                                                                                                              1970
     204 NI=NMHILK)
               UO 206 I=1.41
P1(1)=PMH(LK.I)
                                                                                                                                                                                                              1980
                                                                                                                                                                                                              1990
                 T1(1)=TMH(LK.1)
                                                                                                                                                                                                              2000
     206 CONTINUE
                                                                                                                                                                                                              2010
                N1=L++1
                                                                                                                                                                                                              2020
    DO 216 1=N1:48R
1F(LKFX:1)-1) 208:208:216
208 N2=NMH(1)
                                                                                                                                                                                                              2030
                                                                                                                                                                                                              2040
                                                                                                                                                                                                              2050
                12(J)=TMH( 1,J)
P2(J)=PMH( 1,J)
                                                                                                                                                                                                              2060
                                                                                                                                                                                                              2070
                                                                                                                                                                                                              2080
                                                                                                                                                                                                              2090
     210 CONTINUE
                CALL CONV(P1.P2.P3.71.T2.T3.N1.N2.N3)
                                                                                                                                                                                                              2100
                                                                                                                                                                                                              2110
                IF(NBK- 1) 222.242.212
                                                                                                                                                                                                              2120
2130
2140
     212 NI=N3
                10 214 J=1+HL
                   1(J)=P3(J)
                                                                                                                                                                                                              2150
     214 CONTTRUE
                                                                                                                                                                                                              2160
     216 LONE 1111/F
                                                                                                                                                                                                              2180
     222 NFH1=113
                UC 224 1=1+45H1
TMH1(1)=T3(1)
                                                                                                                                                                                                             2190
2200
                PMH1(1)=P3(1)
                                                                                                                                                                                                              2210
      224 CONTINUE CALCULATE ESTIMATE OF INSPECTION NORM
                                                                                                                                                                                                              2220
                                                                                                                                                                                                              2240
                                                                                                                                                                                                              2250
C CALCULATE MEAN VALUE OF CALCULATED LOOK MANHOUR DISTRIBUTION
    CALCULATE MEAN VALUE OF CALCULATED LOOK MANHOUR DISTRIBUTION
CALL MADY (T37-873-83-848M-0EVM)
CALCULATE MEAN VALUES OF EMPIRICAL NORM AND MANHOUR DISTRIBUTIONS
CALL MADY (TALM, PNEM, NNEM, BNE, DNE)
CALL MADY (TALM, PNEM, PNEM, BNEM, BNEM, BNEM, PNEM, PNE
                                                                                                                                                                                                              2260
c
                                                                                                                                                                                                              2270
                                                                                                                                                                                                              2280
                                                                                                                                                                                                             2290
                                                                                                                                                                                                              2310
                                                                                                                                                                                                             2320
2330
                                                                                                                                                                                                             2340
                                                                                                                                                                                                              2360
     242 N1=WH(1)
               00 244 J=1.41 (MH(1.J).FM
                                                                                                                                                                                                              2370
    (MH(1,J)=TMH(I,J)=FM

244 CONTINUE

248 CONTINUE

GO 1U 26U

COMPENT MEAN VALUES OF NORM

250 IF (AUS(RAP(+-NNL)=0,1) 270*26U*260

260 UO 260 I=I*NLR

IF (CKFX(I)=I) 262*262*266

262 FHR(I)=(FHR(I)=BNE)/(FM+BARN)

40 1U 268
                                                                                                                                                                                                              2380
                                                                                                                                                                                                              2390
                                                                                                                                                                                                              2400
                                                                                                                                                                                                              2410
                                                                                                                                                                                                              2420
                                                                                                                                                                                                              2430
2440
                                                                                                                                                                                                              2450
                60 10 268
    266 FHH(1)=(FHH(1)+BNE)/WARN
266 COH(1HUE
                                                                                                                                                                                                              2450
2490
               RETURN CCCCCCCCCCCCCCCCCCCC
                                                                                                                                                                                                              2500
```

```
OUTPUT OF ABOVE CALCULATIONS CONSISTS OF THE FOLLOWING ITEMS
TMH([,J],PMH([,J) VALUES OF HOURS AND PHOBABILITY DEFINING AN
AUJUSTED DISTRIBUTION OF MANHOURS OR SPAN TIME
                                                                                                             2520
                   HAVIOSITED DISTRIBUTION OF MANHOURS OR SPAN TIME
FOR HEACH I
RATIO OF ADJUSTED LOOK MANHOURS TO INPUT LOOK MANHOURS
THE ADJUSTED RATIO OF CLOCK HOURS TO MANHOURS FOR BRANCH I
MEAN VALUES OF NORM FOR CALCULATED AND EMPIRICAL
                                                                                                             2550
2560
                                                                                                               570
        FHH(1)
                                                                                                             2580
2590
                        DISTRIBUTIONS
                         STANDARD DEVIATION OF NORM FOR CALCULATED AND EMPIRICAL
                                                                                                              2600
                        DISTRIBUTIONS
WEAN VALUES OF MANHOURS FOR CALCULATED AND EMPIRICAL
                                                                                                             2610
        HARM, BMHE
                        DISTRIBUTIONS
                                                                                                             2630
        DLVM.DMHE
                        STANDARD DEVIATION OF MANHOURS FOR CALCULATED AND EMPIR
                                                                                                             2640
                        DISTRIBUTIONS
                                                                                                             2650
2660
                                   VALUES OF MANHOURS AND PROBABILITY DEFINING CALCULATED DISTRIBUTION OF INSPECTION MANHOURS
        IMHI(1), PPHI(1)
                                                                                                              2670
        (MORCEC, PNORCEC
                                                                                                              2680
            C
                                                                                                              2690
        ENU
                                                                                                              2700
         SUUNOUT THE HAM
                                                                                                             2710
   2720
                                                                                                             2730
                                                                                                             2740
                                                                                                             2760
        2770
                                                                                                             2780
2790
                                                                                                             2800
                                                                                                             2810
                                                                                                             2620
       120(.PH(150.20).NMH(150).TSP(150.20).PSP(150.20).NSP(150).
2FHK(150).K(149).L(149).M(149).TNOR(20).PNOR(20).NNOR.BARN.DEV.TMHI
3(20).PMHI(20).MMHI.FM.BARM.DEVM.BNE.DNE.BMHE.DMHE.LKFX(150)
                                                                                                             2830
                                                                                                             2840
2850
        U(MEHS104 [K(20(,TL(20),TR(20),PL(20),PK(20),PR(20)
                                                                                                              2860
C COMBINE BPANCHES
                                                                                                             2870
        NCOMENHE-1
                                                                                                             2880
      . UN DU 111=1+4COM
                                                                                                              2890
        KI-HEK (III (
                                                                                                             2900
        LI'HEL (N()
                                                                                                             2910
        NKELSP(KOR)
                                                                                                              2920
        NL=HSP(LUP(
                                                                                                             2930
        UO 12 (=1+NK
(K(1)=TSP(KING+1)
                                                                                                             2050
        PK(1)=PSF(Kinte()
                                                                                                             2960
   12 CONTINUE

DO 14 (=1+NL

(L(1(=75)*(L)n+1)
                                                                                                              2970
                                                                                                             2980
        PL(1)=PSP(LbR+1)
                                                                                                             3000
    14 CONTINUE
                                                                                                             3010
   1F(E(NI)) ( 20020.30

P.EG. U FOR PANALLEL BRANCHES
20 CALL MULT(PF.PL.PR.TK.TL.TR.NK.NL.NR)
GC 10 32

M.GT. U FOR SLKILS (RANCHES
                                                                                                             3030
                                                                                                              3040
                                                                                                             3050
                                                                                                             3060
   30 CALL CONV(PK,PL,PR,TK,TL,TR,GK,NL,NR)
32 HSP(KER)=NR
                                                                                                             3070
                                                                                                             3080
       UO 40 1=1+HR
TSP(KUR+1)=TR(1)
PSP(KER+1)=PR(1)
                                                                                                             3100
                                                                                                             3110
   40 CONCLINE
    SO CONTINUE
                                                                                                             3130
   STORE HORM DISTRIBUTION IN THOR PHOR
                                                                                                             3140
                                                                                                             3150
       UO 60 I=1:NIOR
TNOR(I)=TSP(KB R:1)
PNOR(I)=PSP(KB R:I)
                                                                                                             3160
                                                                                                             3170
                                                                                                             STAD
    60 CONTINUE
  3190
                                                                                                             3210
                                                                                                             3220
3230
                                                                                                             3240
                                                                                                             3260
3270
       UI V
                                                                                                             3290
3290
3300
        RETURN
 SIBRUDITINE MULT(P1.P2.P3.T1.T2.T3.N1.N2.N3)
THIS KUUTINE OD(PUTS AS T3-P3 THE PHODUCT OF T1-P1 AND T2-P2
UTHENSION T1(20).T2(20).T3(20).P1(20).P3(20).P3(20).TH(40).PH(48)
THE PHODUCT OF P1 AND P2 IS PLACED IN P3
PLALE P1.T1.F2.T2 VALUES IN PH.TH
NSENIAMS
                                                                                                             3310
                                                                                                             3320
                                                                                                             3330
                                                                                                             3340
                                                                                                             3350
                                                                                                             3360
       N3=N1+N2
                                                                                                             3370
                                                                                                             3380
3390
        UO 10 1=1:NI
```

```
PH(1)=P1(1)
           10 CONTINUE
00 12 1=1+N2
)H(1+H1)=T2(1)
                                                                                                                                                                                                                                                                               3410
                                                                                                                                                                                                                                                                                3430
            PH(1+H1)=P2(1)
                                                                                                                                                                                                                                                                               3440
          MULITICHY P3 VALUES BY PROPER P1 AND P2 VALUES
D0 2U 1=1.N1
D0 T6 J=1.N2
                                                                                                                                                                                                                                                                               3460
                                                                                                                                                                                                                                                                                3470
                                                                                                                                                                                                                                                                               3450
          UIF=)2(J)=T1(1)
IF(ABS(NIF)=5:E=7) 14:13:13
15 IF(UIF) 16:14:15
14 PH(1)=PH(1)+P2(J)
                                                                                                                                                                                                                                                                               3490
                                                                                                                                                                                                                                                                               3500
                                                                                                                                                                                                                                                                              3510
3520
       00 TO 20
15 IF(J-1) 151+151+152
151 PH([]=U.U
                                                                                                                                                                                                                                                                               3530
                                                                                                                                                                                                                                                                              3540
3550
                     60 10 20
                                                                                                                                                                                                                                                                               3560
                                                                                                                                                                                                                                                                              3570
3580
        152 PH(1)=PH(1)+P2.J-1)
                     60 10 20
            16 CONTTINE
                                                                                                                                                                                                                                                                               3590
           20 CONTINUE
                                                                                                                                                                                                                                                                               3600
          00 30 1=1.N2

00 20 J=1.N1

UF=71(J)-72(1)

1F(ABS(D1F)-5.L-7) 24.23.23

23 1F(U1F) 26.24.25

24 PH(1+H)1=PH(1+H)0-P1(J)

40 10 30
                                                                                                                                                                                                                                                                               3610
                                                                                                                                                                                                                                                                               3630
                                                                                                                                                                                                                                                                               3640
                                                                                                                                                                                                                                                                              3650
3660
       50 10 30
25 1F(J=1) 251-251-252
251 PH(1+N1)=0.0
                                                                                                                                                                                                                                                                               3670
                                                                                                                                                                                                                                                                               3680
                                                                                                                                                                                                                                                                              3690
3700
       GO TO 30
252 PH(1+H1)=PH(1+H1)+P1(J-1)
                                                                                                                                                                                                                                                                               3710
          GO TO 30
26 CONTINUE
30 CONTINUE
                                                                                                                                                                                                                                                                               3720
                                                                                                                                                                                                                                                                              3730
                                                                                                                                                                                                                                                                               3740
C ARRANGE THOPH IN ORDER OF INCREASING TH
CALL ORD(THOPHONS)
C ELIMINATE DUPLICATE THEPH PAIRS
                                                                                                                                                                                                                                                                               3750
                                                                                                                                                                                                                                                                              3760
                                                                                                                                                                                                                                                                              3770
          32 UO 40 1=2/63
1F(ABS(TH(1)=TH(1=1))=5.E=7) 34.34.40
                                                                                                                                                                                                                                                                               3790
           34 K=1+1
                                                                                                                                                                                                                                                                               3800
          00 36 J=K+N3
TH(J=1)=[H(J)
PH(J=1)=PH(J)
36 CON[THUE
                                                                                                                                                                                                                                                                               3810
                                                                                                                                                                                                                                                                               3820
3830
                                                                                                                                                                                                                                                                               3840
3850
                     N3=NJ-1
                                                                                                                                                                                                                                                                               3860
           40 LON (1NUE
                                                                                                                                                                                                                                                                              3870
3880
          ELIMINATE UNNECESSARY POINTS
                                                                                                                                                                                                                                                                               3690
          1F(ADS(PH(1)=PH(1=1))=5.E=7) 44.44.46
44 82)+1
110 40 JEK+115
                                                                                                                                                                                                                                                                               3900
                                                                                                                                                                                                                                                                               3910
                                                                                                                                                                                                                                                                               3920
                                                                                                                                                                                                                                                                               3930
                     TH(J=1)=|H(J)
PH(J=1)=PH(J)
                                                                                                                                                                                                                                                                               3940
3950
           46 LCHTINUF
                     143=143-1
                                                                                                                                                                                                                                                                                3960
| M3=13-1 |
| GO TO 42 |
| 48 CONTINUE |
| C REDUCE VECTOR SIZES |
| CALL REDUCTION SIZES |
| CALL REDUCTION SIZES |
| C PLACE PH VALUES IN P3. AND TH VALUES IN T3 |
| DO 50 1=1.N3 |
| P3(1)=PH(1) |
| T3(1)=TH(1) |
| T0 CONTINUE |
| CONTIN
                                                                                                                                                                                                                                                                               3970
                                                                                                                                                                                                                                                                                3980
                                                                                                                                                                                                                                                                               3990
4000
                                                                                                                                                                                                                                                                                4010
                                                                                                                                                                                                                                                                               4020
4030
                                                                                                                                                                                                                                                                               4040
            50 CONTINUE
                     HETURN
                                                                                                                                                                                                                                                                                4060
                      LIU
                                                                                                                                                                                                                                                                               4070
LIU

SUBHUUTINE (CNY(PI,P2,P3,T1,T2,T3,N1,N2,N3)

C THIS ROUTINE OU)PUTS AS T3-P3 THE CONVOLUTION OF T1-P1 AND T2-P2

DIMENSION P1(20),P2(20),P3(20),T1(20),T2(20),T3(20),PD1(20),

IPD2(20),PROU(20,20),T1(20,20),TU(400),PROE(400)

EOUIVALENCE (TU(1),TT(1),1)

EQUIVALENCE (PROE(1),PHOD(1,1))

C CALCULATE DISCRETE PROBABILITY DENSITY FUNCTION
                                                                                                                                                                                                                                                                               4110
                                                                                                                                                                                                                                                                                4120
                                                                                                                                                                                                                                                                               4130
                                                                                                                                                                                                                                                                               4132
                                                                                                                                                                                                                                                                                4135
                                                                                                                                                                                                                                                                               4140
                     PD1(1)=P1(1)
                     PD1(1)=P2(1)

D0 2 1=2,N1

PD1(1)=P1(1)-P1(1-1)
                                                                                                                                                                                                                                                                                4170
                                                                                                                                                                                                                                                                               4180
                                                                                                                                                                                                                                                                                4190
               2 CONTINUE
                     00 3 1=2,112
PD2(1)=P2(1)=P2(1=1)
                                                                                                                                                                                                                                                                               4200
4210
S CONTINUE C CALCULATE ELEMENTS OF MATRICES
                                                                                                                                                                                                                                                                                4220
                                                                                                                                                                                                                                                                               4230
                     00 20 1=1.N1
00 10 J=1.N2
TT(1.J)=[1(1)+T2(J)
                                                                                                                                                                                                                                                                                 4250
                                                                                                                                                                                                                                                                               4260
                     PROU(1.J)=PD1(1)*PD2(J)
                                                                                                                                                                                                                                                                                 4280
             10 CONTINUE
            20 CONTINUE
                                                                                                                                                                                                                                                                                 4290
                                                                                                                                                                                                                                                                                 4300
                       H3=H1+N2
```

C	ARRANGE ELEMENTS IN ORDER OF INCREASING TT(1)	¥310
	U0 24 J=1.N2	4320
	U0 23 1=1+N1	4330
	K=I+N1+(J-1) TU(K)=FT(I+J)	4340
	PROE (K) = PROU (I, J)	4350 436 <i>0</i>
	23 CONTINUE	4370
	SA CONTINUE	4380
c	CALL ORDITI: PRODING) ELIMINATE DUPLICATE VALUES IN TT	4390
•	32 UO 40 1=20N3	4400 4410
	1F(AUS(TU(1)-TU(1-1))-5.E-7) 34,34,40	4420
	34 PROE(I-1)=PROE(I-1)+PROE(I)	4430
	60 10 42	4440
	40 CONTINUE	4450 4460
	42 X=1+1	4470
	UO 44 J=K+N5	4480
	TU(J-1)=(U(J)	4490
	PROF(J-1)=PROE(J) 44 CONTINUE	4500
	N3=1,3-1	4510 4520
	UI) (U .52	4530
C	CALLILATE COMMENTATIVE PROBABILITY	4540
	PROE(1)=PROE(1)+PROE(1-1)	4550 4560
	SU CONTINUE	4570
C	FLIMINATE UNNECESSARY POINTS	4560
	H=2	4590
	60 UO 62 1=N+N3 K=1	4600
	IF(ABS(PROE(1)-PROE(1-1))-5.E-7) 64.64.62	4610 4620
	62 CONTINUE	4630
	60 10 70	4640
	64 N3=13-1 1F(11-113) 66+06+70	4650 4660
	66 DO 67 JEK+143	4670
	PRUE (J)=PRUE (J+1)	4680
	TU(J)=TU(J+1)	4690
	67 CONTINUE NEK	4700 4710
	60 10 60	4720
C	REDUCE VECTOR SIZES IF NECESSARY	4730
	70 CALL REDCITT, PROD, N3)	4740
	80 UO US I=1+N3 P3(I)=PRUE(I)	4750
	13(1)=Tu(1)	4760 4770
	85 CON) THUE	4780
	HETUHII	4790
	END Subhoutine Okbitt,PROD,N3)	4800
C	THIS ROUTINE ARRANGES TI-PROD PAIRS IN INCREASING ORDER OF TT	4790 4800
	DIMENSION IT(40).PROD(40)	4810
	N=N3-I	4820
	00 27 I=1+1+	4830
	K=1+1 DO 26 J=K+N3	4840 4850
	IF(T((1)-T((J)) 26.26.25	4860
	25 HOLU=TT(1)	4870
	(T(I)=TT(J)	4880 4890
		4900
	PROD(1) =PROD(J)	4910
	PROD(J)=HOLD	4920
	25 CONTINUE	4930
	27 CONTINUE RETURN	4940 4950
		4960
	END	
	SUBROUTINE REDC(TT.PROD.N3)	4970
Ċ	SUBHOUTINE REDUCES VECTORS TT. PROD TO ACCEPTABLE SIZES	4970 4980
C	SUBROUTINE REDUCES VECTORS TT.PROD TO ACCEPTABLE SIZES DIMENSION TT(40).PROD(40)	4970 4980 4990
c	SUBHOUTINE REDUCES VECTORS TT. PROD TO ACCEPTABLE SIZES	4970 4980
C	SUBHOUTINE REDUCES VECTORS TT.PROD TO ACCEPTABLE SIZES DIMENSION TT(40).PROD(40) TO IF(113-20) HO.80.71 TI SHM=)T(3)-T)(1) IORP=2	4970 4980 4990 5000
Ċ	SUBHOUTINE REDC(TT*PROD*N3) THIS ROUTINE REDUCES VECTORS TT*PROD TO ACCEPTABLE SIZES DIMENSION TI(40)*PROD(40) 70 IF(13-20) 80*80*71 71 SUM=17(3)*T)(I) IORE=2 DO 74 I=4*H3	4970 4980 4990 5000 5010 5020 5030
C	SUBHOUTINE REDC(TT, PROD; N3) THIS ROUTINE REDUCES VECTORS TT, PROD TO ACCEPTABLE SIZES UIMENSION TT(40), PROD(40) 70 IF(113-20) 80.80.71 71 SUM=)T(3)-T)(1) IORP=2 DO 74 I=4+H3 [SUM=)T(1)-T)(1-2)	4970 4980 4990 5000 5010 5020 5030 5040
c	SUBHOUTINE REDC(TT, PROD.N3) THIS ROUTINE REDUCES VECTORS TT, PROD TO ACCEPTABLE SIZES UIMENSION TT(40), PROD(40) 70 IF(13-20) 80.80.71 71 SUM=)T(3)-T)(1) IORP=2 DO 74 I=4.43 [SUM=)T(1)-T)(1-2) IF(ISUM-SUM) 72.74.74	4970 4980 4980 5000 5010 5020 5030 5050
c	SUBHOUTINE REDC(TT, PROD; N3) THIS ROUTINE REDUCES VECTORS TT, PROD TO ACCEPTABLE SIZES DIMENSION TI(40), PROD(40) 70 IF(13-20) 80,80,71 71 SUM=1T(3)-T)(I) IORE=2 DO 74 I=4,83 [SUM=)T(1)-T)(I-2) IF(ISUM-SUM) 72,74,74 72 SUM=ISUM IORP=I-I	4970 4980 5000 5010 5010 5030 5030 5050 5060 5070
c	SUBHOUTINE REDC(TT, PROD; N3) THIS ROUTINE REDUCES VECTORS TT, PROD TO ACCEPTABLE SIZES UIMENSION TT(40), PROD(40) 70 IF(13-20) 80.80.71 71 SUM=)T(3)-T)(1) IORN=2 D0 74 I=4.H3 [SUM=)T(1)-T)(1-2) IF(15UM-SUM) 72.74.74 72 SUM= SUM IDRP=1=1 74 LONTINUE	4970 4980 4980 5010 5010 5030 5040 5050 5060 5070 5070
c	SUBHOUTINE REDCCTT*PROD*N3) THIS ROUTINE HEDUCES VECTORS TT*PROD TO ACCEPTABLE SIZES DIMENSION TI(40)*PROD(40) 70 IF(1/3-20) HO*80*71 71 SHM=>T(3)*T)(1) 18HP=2 DO 74 I=4*H3 [SUM=>T(1)*T)(1-2) IF(15UM-SUM) 72*74*74 72 SUM= SUM IDHP=1=1 74 CONTINUE K=N3-1	4970 4980 5000 5010 5010 5030 5040 5050 5060 5070 5090
C	SUBHOUTINE REDC(TT*PROD*N3) THIS ROUTINE REDUCES VECTORS TT*PROD TO ACCEPTABLE SIZES DIMENSION TI(40)**PROD(40) 70 IF(13-20) **HO**ROU*71 71 SHM=17(3)**T(1) IRH=2 DO 74 I=4*H3 [SUM=17(1)**T(1)**T(1-2) IF(15UM-5UM) 72*74*74 72 SUM=15UM IRH=1-1 74 CONTINUE K=N3-1 UO 76 I=1CRP*K	4970 4980 4980 5010 5010 5030 5040 5050 5060 5070 5070
c	SUBHOUTINE REDCCTT*PROD*N3) THIS ROUTINE HEDUCES VECTORS TT*PROD TO ACCEPTABLE SIZES DIMENSION TI(40)*PROD(40) 70 IF(1/3-20) HO*80*71 71 SHM=>T(3)*T)(1) 18HP=2 DO 74 I=4*H3 [SUM=>T(1)*T)(1-2) IF(15UM-SUM) 72*74*74 72 SUM= SUM IDHP=1=1 74 CONTINUE K=N3-1	4970 4980 5000 5010 5010 5030 5040 5050 5060 5070 5070 5110 5120
c	SUBHOUTINE REDC(TT*PROD*N3) THIS ROUTINE REDUCES VECTORS TT*PROD TO ACCEPTABLE SIZES DIMENSION TI (40)**PROD(40) 70 IF(13-20) #0**80*71 71 SUM=1F(3)**T(1) IORD=2 DO 74 I=4**43 FSUM=1F(1)**T(1)**T(1-2) IF(15UM-SUM) 72**74**74 72 SUM=1SUM IDRP=1-1 74 CONTINUE K=N3-1 UO 76 I=1CRP*K)T(1)=TT(1+1) PROD(()=PROD(1+1) 76 CONTINUE	4970 4980 5000 5010 5010 5030 5040 5050 5060 5070 5090 5100 5110 5120
c	SUBHOUTINE REDC(TT, PROD, N3) THIS ROUTINE REDUCES VECTORS TT, PROD TO ACCEPTABLE SIZES UMENSION TT(40), PROD(40) 70 IF(13-20) 80,80,71 71 SUM=1T(3)-T)(I) IORP=2 DO 74 I=4,83 [SUM=)T(1)-T)(1-2) IF(ISUM-SUM) 72,74,74 72 SUM=ISUM IORP=I-1 74 CONTINUE K=N3-1 UO 76 I=ICRP+K)T(1)=TT(1+1) PROD(()=PROD(I+1) 76 CONTIRUE N3=K	4970 4980 5000 5010 5010 5030 5030 5040 5050 5070 5070 5110 5110 5120 7130
C	SUBHOUTINE REDCCTT*PROD*N3) THIS ROUTINE HEDUCES VECTORS TT*PROD TO ACCEPTABLE SIZES UIMENSION TI (40)**PROD(40) 70 IF(1/3-20) #0**80**71 71 SIME)**I(3)**-T)(1) 10RP=2 D0 /4 I=4**43	4970 4980 5000 5010 5020 5030 5050 5050 5070 5070 5110 5120 7130 5140 5150
C	SUBHOUTINE REDC(TT, PROD, N3) THIS ROUTINE REJUCES VECTORS TT, PROD TO ACCEPTABLE SIZES UMENSION TT (40), PROD(40) 70 IF (13-20) 80, 80, 71 71 SUM=17(3)-T)(I) 10RP=2 D0 74 I=4, H3 [SUM=17(1)-T)(I-2) IF (ISUM-SUM) 72, 74, 74 2 SUM=ISUM 10RP=I-1 74 CONTINUE K=N3-1 U0 76 I=1CRP, K)T(1)=TT(1+1) PROD(()=PROD(I+1) 6 CONTINUE N3=K 90 10 70 H0 METURGA E70	4970 4980 5000 5010 5010 5030 5030 5040 5050 5070 5070 5110 5110 5120 7130
c	SUBHOUTINE REDC(TT*PROD*N3) THIS ROUTINE HEDUCES VECTORS TT*PROD TO ACCEPTABLE SIZES UIMENSION TI (40)**PROD(40) 70 IF(13-20) **HO**ROU**71 71 SUM=)**I(3)**T(1)** IOHP=2 DO 74 I=4**H3	4970 4980 4990 5000 5010 5030 5040 5050 5060 5070 5090 5100 5110 5120 7130 5140

```
C THIS HOUTINE CALCULATES THE MEAN AND STANDARD DEVIATION OF T

UIMENSION T(20) *P(20)

BART=T(1) *P(1)

DO 10 T=2*N

BART=BART+T(1) *(P(1) -P(1-1))

10 CONTINUE

SDEV=P(1) *(T(1) -BART) ***2

DO 20 T=2*N

SDEV=SDEV*(P(1) -P(1-1)) *(T(1) -BART) ***2

20 CONTINUE

SDEV=SORT(SDEV)

KETUKN
                                                                                                                                                                                                          5190
5200
5210
5220
5230
5240
5250
5260
5270
5260
5290
5310
                                       KETUKN
                        /* KLQUIKED PLACE FURTRAN BCD SOURCE BEFORE THIS CARD //LKED.SYSPRINI DU SPACE>CYL.[1.13] //LKED.SYSIN DD DATA.SPACE>LTRK.[5.5]
                       //LKED.STSIN DD DATA.SPACE>ECYL-E1.133
9999
SAMPLE CASE 1
11 5 5
U. 5. 4. 4.2 6.
0. .1 .5 .A 1.
0. 3. 4. 4.2 6.
                        1.
                                                                                                                       .5
                                                                                                                                              1.
                                                                                                                                                                     .75
                                                                                                                                                                                            1.
                                                                                               •6
                                                                                                                      .8
                        1. 1. 2 .2 1. 2 .1 .2 .5 .2 1. 5 .2 1. 5 .4 .6 1.
                                                                       .5
                                                                                               .6
                                                                                                                       .8
                                                                       .2
.9
                                                                                               1.
                                                                                                                                              1.
                                                                                                                                                                     1.
                                                                                                                                                                                             1.
```

6.15 MANHOUR AND NORM DATA - TASK 7

6.15.1 SUM UNSCHEDULED MAINTENANCE ACTIONS

```
01;; 6, WANG 1:PRTY>02:TYPRUN>HOLD
P9655L:TIME>02:ACCT>D35323007
DD DISPX:PASS3:UNIT>EA+F1:8:DEFER3:DSN>+A:9897416:
VOL>SER>[+F1:A+F1:8+F1:C+F1:D+F1:E+F1:F+F1:G+F1:H+F1:
I+F1:J+F1:K+F1:L+F1:M+F1:N+F1:O+F1:P+F1:G+F1:R+F1:S+F1:
DD D1SP>C:PASS3:UNIT>EA+F5:2:DEFER3:DSN>*E:9807460:
VUL>SER>[+F5:A+F5:B+F5:C+F5:D+F5:E+F8:F+F5:B+F6:H+F8:
I1F3:J4+5:K+F5:L+F5:M+F5:N+F5:O+F5:P+F5:Q+F6:M+F8:
I1F3:J4+5:K+F5:L+F5:M+F5:N+F5:O+F5:P+F5:Q+F6:M+F8:
//C9897K JOB
//C9897K EXEC
 //CHG. TU12
                                                                                                                                                                                                                                            CT12/13 1
                                                                                                                                                                                                                                            CT22/23 1
 //CHG.TU22
                                                                                                                                                                                                                                                122
                                                  DU +.SPACE>LCYL+(1+1))
COMBINE COMPILE
                                                                                                                                                                                                                                                1440 CDS
 //CHG. INPUT
                      COMBINE COMPILE
 00000
                                                                                                                                                                          G. HANG.
                                                                                                                                                                                                                                                      C98970
C98970
 01040
                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                       C98970
 02400
                       ENVIRONMENT DIVISION.
                       CONFIGURATION SLCTION.
SUUNCE-COMPUTER. IBM-360.
OBJECT-COMPUTER. IBM-360.
 02010
 02020
                                                                                                                                                                                                                                                        C98970
                       INPUT-OUTPUT SECTION,
FILE-CONTROL.
 02100
                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                       C98970
 02110
 02120
                                      SELECT IN-FILE-UB
                                                                                                                                        ASSIGN TO UT-S-TU12
                                     RESERVE 1 ALTERNATE AREA.
SELECT IN-FILE-ISC
 02130
                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                       C98970
                                                                                                                                       ASSIGN TO DA-S-DT01
 02140
                                      RESCRYE I ALTERNATE AREA.
SELECT GUT-DATA
RESCRYE 1 ALTERNATE AREA.
                                                                                                                                                                                                                                                        C98970
 02160
                                                                                                                                        ASSIGN TO UT-5-TU22
                                                                                                                                                                                                                                                        C98970
  10000
                        DATA DIVISION.
                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                        C98970
                       FILE SECTION.
 10010
                                    IN-FILE-DU
BLOCK CUNTAINS 40 HECORDS
RECURU CONTAINS 70
LABEL RECORDS ARE OMITTED
DATA RECORDS ARE IN-REC-D-B.
IN-REC-D-B SYNC.
                                                                                                                                                                                                                                                         C98970
 10100
 10130
10140
                                                                                                                                                                                                                                                        C98970
                                                                                                                                     CHARACTERS
  10150
                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                        C98970
 10160
 10200
                        01
                                     02 FILLER
IN-FILE-ISC
 10210
                                                                                                                                  PICTURE XC703.
                                                                                                                                                                                                                                                        COAGTO
                                                                                                                                                                                                                                                        C98970
                        ₽D
 11300
                                      RECURDING MUDE IS F
BLOCK CONTAINS 20 RECURDS
                                                                                                                                                                                                                                                       C98970
C98970
 11320
 11330
11340
                                      RECURD CONTAINS 80
                                                                                                                                      CHARACTERS
                                     LABEL RECORDS ARE STANDARD DATA RECORDS ARE IN-REC-ISC. IN-REC-ISC SYNC.
 11350
                                                                                                                                                                                                                                                        COAGTO
                                                                                                                                                                                                                                                        C98970
 11360
                                                                                                                                                                                                                                                        C98970
 11400
                                     02 FILLER
 11410
                                                                                                                                  PICTURE XEAD ..
                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                        C98970
                       FD
 12100
 12120
                                      HECOHOTHS MODE 15 F
BLOCK CONTAINS 60 RECORDS
                                                                                                                                                                                                                                                        C98970
 12130
                                                                                                                                                                                                                                                        C98970
 12140
                                      RECURD CONTAINS 50
                                                                                                                                      CHARACTERS
                       LABEL RECORDS ARE OMITTED

UATA RECORDS ARE TAPE-FILE.

01 TAPE-FILE SYNC

WORKING-STORAGE SECTION.

77 ISCHROWAL SYNC
 12150
                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                        C98970
 12160
 12180
                                                                                                                                  PICTURE X(50).
                                                                                                                                                                                                                                                         C98970
 30000
                                                                                                                                                                                                                                                        C98970
 30010
                                                                                                                                   PICTURE X
                                                                                                                                  PICTURE X,
PICTURE X,
PICTURE 999.
PICTURE $999.
PICTURE $10 VALUE $PACE.
PICTURE $10 COMPUTATIONAL,
PICTURE $10 COMPUTATIONAL.
PICTURE $10 VALUE 
                                    WDC-TLAM SYNC
WEEK-TEAM SYNC
KNT STIC COMPUTATIONAL
CUR-SN
 30020
                                                                                                                                                                                                                                                        CUROTO
                                                                                                                                                                                                                                                        C98970
 30040
 30050
                                                                                                                                                                                                                                                         C98970
 30060
                                                                                                                                                                                                                                                        C98970
 30u70
                                      P-WLEK
 30080
                                      P-FLT-HKS
                                                                                                                                                                                                                                                        C98970
                                                                                                                                                                                                                                                         C98970
 30100
                                                                                                    SYNC
                                      10-mUL
                                      CHT STHE COMPUTATIONAL
                                                                                                                                                                                                                                                         C98970
 30170
                                    CNT STHE COMPUTATIONAL PICTURE $999.

ISC-TEMP SYNC PICTURE X(8) VALUE SPACE.

ISC-FLAV SYNC PICTURE X(8) VALUE SPACE.

ISC-FLAV PICTURE X(8) VALUE SPACE.

ISC-FLAV PICTURE X(8) VALUE SPACE.

ILMP-HILL SYNC PICTURE X(8).

ILMP-HILL SYNC PICTURE $99 COMPUTATIONAL.

NO-MDC-COLS COMPUTATIONAL PICTURE $99 COMPUTATIONAL.

BF COMPUTATIONAL PICTURE $99 SYNC VALUE <21.

PICTURE X VALUE III.

PICTURE X VALUE SPACE.
                                                                                                                                                                                                                                                        C98970
 30400
                                                                                                                                                                                                                                                        C98970
 30410
                                                                                                                                                                                                                                                        C98970
 30420
 30500
                                                                                                                                                                                                                                                         C98978
   30510
                                                                                                                                                                                                                                                         C98970
 30520
                                                                                                                                                                                                                                                         C98970
                                     BF COMPUTATIONAL
ONE SYNC
TWO SYNC
TWO SYNC
COMPUTATIONAL
ISC-TITLE-FLAG SYNC
NI-TITLE-FLAG SYNC
 30530
 30540
                                                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                                                         C98970
 30550
 30560
                                                                                                                                                                                                                                                        C98970
                                                                                                                                   PICTURE X.
 30570
 30580
                                                                                                                                    PICTURE
                                    NI-LINE-FLAG
ISC-LINE-FLAG
PAGE-NUMBER-ISC
PAGE-NUMBER-NI
NO-REC-PRINT-ISC
NO-REC-PRINT-NI
                                                                                                                                  PICTURE X.
PICTURE X.
PICTURE S99
PICTURE S99
                        77
77
77
77
                                                                                                                                                                                                                                                        C98970
C98970
  30590
                                                                                           SYNC
                                                                                          SYNC
 30600
                                                                                                                                                                599 SYNC VALUE ZERO.
599 SYNC VALUE ZERO.
9(7) VALUE ZERO.
 30615
                                                                                                                                                                                                                                                         C98970
                                                                                                                                   PICTURE
                                                                                                                                                                                                                                                         C98970
                                                                                                                                   PICTURE
                                                                                                                                                                 9173 VALUE ZERO.
                                                                                                                                                                                                                                                         C98970
```

```
PICTURE 9(73 VALUE ZERO.
PICTURE 9999 SYNC.
PICTURE S999 SYNC.
PICTURE S999 VALUE ZERO SYNC.
                  77
77
                             NO-REC-TAPE
NO-REC-TAPE—TI
LINE-CRIT-ISC COMPUTATIONAL
LINE-CRIT-NI COMPUTATIONAL
LINE-P'OE "OMPUTATIONAL
SUM-INDEX COMPUTATIONAL
TEMP-INDEX COMPUTATIONAL
TWO-DIGIT-COL COMPUTATIONAL
NO-ISC SYNC.
02 FILLER
30650
30660
                                                                                                                                                                                                             C98970
C98970
30670
                                                                                                                                                                                                              C98970
 30680
                                                                                                                                                                                                              C98970
30682
                                                                                                                                                                                                              C98970
                   77
77
30684
                                                                                                                                                                                                              C94970
 30686
                                                                                                                                                                                                              C98970
                                                                                                                                                                                                              C98970
30688
 31010
                              NO-ISC STNC.

02 FILLER

02 NO-ISC-AC

02 FILLER

1SC-A-C SYNC.

02 FILLER

02 ISC-TN
                                                                                                           PICTURE XX.
PICTURE 5999.
PICTURE XL75J.
 31020
31030
                                                                                                                                                                                                              C98970
31040
                                                                                                                                                                                                              C98970
31050
                   01
                                                                                                                                                                                                              C98970
 31069
                                                                                                            PICTURE XX.
PICTURE XC83.
31070
                                                                                                                                                                                                              C98970
                               02 FILLER
02 ISC-WK
02 FILLER
                                                                                                            PICTURE XX.
31 UAO
                                                                                                                                                                                                              C98970
                                                                                                            PICTURE 999.
PICTURE XE653.
 31090
                                                                                                                                                                                                              C98970
31100
                                                                                                                                                                                                              C98970
                             FILLER SYNC.

02 FILLER DCCURS 36 TIMES.

03 ISC-AC-TN PICTURE XC83.

03 ISC-AC-WK COMPUTATIONAL PICTURE 5999.
31200
                   01
                                                                                                                                                                                                              C98970
31210
                                                                                                                                                                                                              C98970
                                                                                                                                                                                                             C98970
31220
31300
31310
                              INPUT-DU SYNC.
02 FILLER
02 SELIAL-NO
                   01
                                                                                                                                                                                                             C98970
                                                                                                            PICTURE X[5].
PICTURE X[8].
PICTURE 999.
                                                                                                                                                                                                              C98970
31320
31330
                                                                                                                                                                                                             C98970
                               02
                                         WEEK
                                                                                                                                                                                                              C98970
 31340
                                         WUC
                               02
                                                                                                            PICTURE XESJ.
                                                                                                                                                                                                              C98970
                                      FILLER REDEFINES WUC.
31350
                                                                                                                                                                                                              C98970
                                         03 WUC-2
03 FILLER
31360
                                                                                                            PICTURE XX
                                                                                                                                                                                                              C98970
                                                                                                            PICTURE XXX.
                                                                                                                                                                                                              C98970
                                         WDC
31380
31390
                              02
                                                                                                            PICTURE X. PICTURE XXX.
                                                                                                                                                                                                             C98970
C98970
31400
                               02
                                          MA
                                                                                                            PICTURE 999.
                                                                                                                                                                                                              C98970
                                         FILLER
                                                                                                            PICTURE XC 201.
                                                                                                                                                                                                              C98970
31420
31430
31432
                                         IDENT
                                                                                                           PICTURE X.
PICTURE X[4].
PICTURE S9[6].
PICTURE X[11].
                                                                                                                                                                                                              C98970
                               02
                                         02 FILLER
02 FLT-HRS
02 FILLER
                                                                                                                                                                                                              C98970
                                                                                                                                                                                                              C98970
 31434
                                                                                                                                                                                                              C98970
                              REC-OUT SYNC.
05 ISOCHRONAL
05 FILLER
40000
                   01
                                                                                                                                                                                                              C98970
40010
                                                                                                           PICTURE X.
PICTURE X[11] VALUE
                                                                                                                                                                                                             C98970
C98970
40020
 40030
                                                                             1 1.
                                                                                                                                                                                                              C98970
                                                                                                          PICTURE XC53.
PICTURE X VALUE SPACE.
PICTURE XXX.
PICTURE X VALUE SPACE.
PICTURE 9C73V9.
PICTURE X VALUE SPACE.
PICTURE X VALUE SPACE.
PICTURE X VALUE SPACE.
PICTURE X VALUE SPACE.
PICTURE XX VALUE 1 $1.
                                         CUH-WUC
 40040
                               05
                                                                                                                                                                                                              C98970
 40050
                                         FILLER
                                                                                                                                                                                                             C98970
                               05
                               05
05
                                        CUH-HMC
FI:LER
NUMA
 40060
 40070
                                                                                                                                                                                                              C98970
 40080
                                                                                                                                                                                                             C98970
                              05
05
                                        FILLER
MA-HPO
40090
                                                                                                                                                                                                              C98970
 40100
                                                                                                                                                                                                              C98970
                                      FILLER
MA-PE
FILLER
40110
                               05
05
                                                                                                                                                                                                              C98970
                            05 MA-PE
05 FILLER
15 FILLER
16 STATE
16 STATE
17 STATE
18 STATE
1
                                                                                                                                                                                                              C98970
 40130
                                                                                                                                                                                                              C98970
40430
                   01
                                                                                                                                                                                                              C98970
                                                                                                           PICTURE XC53.
PICTURE S99 COMPUTATIONAL.
                                                                                                                                                                                                              C98970
41093
                                                                                                                                                                                                              C98970
 41200
                   01
                                                                                                                                                                                                              C98970
41280
                                                                                                                                                                                                              C98970
                                                                                                                                                                                                              C98970
                                                                                                                                                                                                              C98970
                              TAPE-OUT-NI SYNC.
02 LIST-HMC-NI.
                   01
41600
41680
                                                                                                                                                                                                             C98970
C98970
                              03 HMC-NI OCCURS 21 TIMES PICTURE S9(8).
02 HMC-FREQ-TOTAL-NI PICTURE 59(6).
41892
                                                                                                                                                                                                              C98970
41900
                                                                                                                                                                                                              C98970
42600
                   01
                              NINE SYNC.
                                                                                                                                                                                                              C98970
                                                    ER PICTURE XC50] VALUE
42610
                               02 FILLER
                                                                                                                                                                                                              C98970
 42620
                                                                                                                                                                                                              C98970
                              TABLE-WOC-POS SYNC.
43000
                   01
                                                                                                                                                                                                              C98970
                                                                                                            PICTURE X OCCURS 21 TIMES.
                                                                                                                                                                                                              C98970
45000
                                                   FILLER SYNC.
                                                                                                                                                                                                              C98970
45u10
                               05
                                                    WDC-INPUT.
WDC-TITLE-INPUT
                                                                                                                                                                                                              C98970
 45020
                                                                                                           PICTURE XESJ.
PICTURE XE75J.
                                                                                                                                                                                                              C98970
                                                   FILLER HEDEFINES WOC-INPUT.
PICTURE X(4).
 45030
                                         10
                                                                                                                                                                                                              C98970
45040
                              05
                                                                                                                                                                                                              C98970
 45050
                                                    FILLER
WDC-IN
                                                                                                                                                                                                              C98970
45060
45070
                                                                                                            PICTURE X.
PICTURE XC753.
                                          10
                                                                                                                                                                                                              C98970
                                          10
                                                    FILLER
                                                                                                                                                                                                              C98970
                                                    NUMBER-CARD SYNC.
NUMBER-ITEMS
45100
                   01
                                                                                                                                                                                                              C98970
                                                                                                            PICTURE 999.
PICTURE XX.
45110
                               05
                                                                                                                                                                                                              C98970
 45120
                               05
                                                     FILLER
                                                                                                                                                                                                              C98970
                                                    INPUT-SO-CODE
FILLER
FILLER SYNC.
                              05
                                                                                                                                                                                                              C98970
45130
                                                                                                            PICTURE XCS1
45140
                                                                                                            PICTURE XE701.
                                                                                                                                                                                                              C98970
$5200
5210
                   01
                                                                                                                                                                                                              C98970
                               05
                                                     SUM-WOC-COL
                                                                                                           PICTURE 5999 OCCURS 10 TIMES.
                                                                                                                                                                                                               C98970
                   PROCEDURE JIVISION.
                                                                                                                                                                                                              C98970
```

```
OPEN-FILES:
OPEN INPUT IN-FILE-DR: IN-FILE-ISC: OUTPUT OUT-DATA.
50010
                                                                                                                                                                            C98970
50020
                                                                                                                                                                            C98970
                         PERFORM READ-ISC-A-C THRU END-RIAC.
PERFORM READ-IN-TITLE-DATA THRU END-RETO.
PERFORM RESET-HMC-LINE-NI THRU END-RESET-NI.
PERFORM RESET-HMC-LINE-1SC THRU END-RESET-ISC.
50040
50045
51000
                                                                                                                                                                            C98970
51005
                                                                                                                                                                            C98970
51010
                READ-NSG-WJC.
                                                                                                                                                                            C98970
51020
                          READ IN-FILE-DB INTO INPUT-DB.
                                                                                                                                                                            C98970
                         AT END GO TO CLOSE-TABLE.

IF 1DENT IS NOT EQUAL TO 141 GO TO READ-NSG-WUC.
PERFOR 4 PROC-WDC THRU END-PROC-WDC.
IF POS-WDC IS EQUAL TO ZERO GO TO READ-NSG-WUC.
51030
                                                                                                                                                                            C98970
51040
                                                                                                                                                                           C98970
51050
51060
                                                                                                                                                                            C98970
                NEXT-WUL.

MOVE WUC TO CUR-WUC.

ADD 1 TO NO-WUC.
51100
                                                                                                                                                                            C98970
51150
                                                                                                                                                                            COASTO
                         THMC.

MOVE HIC TO CUR-HMC.

PERFOR'S CHECK-ISCHRONAL THRU END-CI.

IF ISCHRONAL IS EQUAL TO ONE PERFORM ADD-ISC.

ELSE PERFORM ADD-NI.
                                                                                                                                                                            C98970
51200
51210
51240
51250
                                                                                                                                                                            COASTO
51260
                                                                                                                                                                            C98970
51300
                READ-DATA.
                                                                                                                                                                            C98970
                         FEAU IN-FILE-DB INTO INPUT-DB:

AT END GO TO CLOSE-TABLE.

IF 1CENT IS NOT EQUAL TO :4: GO TO READ-DATA.

PERFORM PROC-WDC.

IF POS-WDC IS EQUAL TO ZERO GO TO READ-DATA.
51310
51320
                                                                                                                                                                            C98970
 51330
                                                                                                                                                                            C98970
 51340
51350
                                                                                                                                                                            COAGTO
                          F POS-NO TS EQUAL TO ZERO GO TO READ-DATA.

PERFORM CHECK-ISCHRONAL THRU END-CI.

IF WUL 1S NOT EQUAL TO CUR-WUC GO TO OUTPUT-TABLE-END.

IF HML IS NOT EQUAL TO CUR-HMC GO TO OUTPUT-LINE.

IF ISCHRONAL IS EQUAL TO ONE PERFORM ADD-ISC.

ELSE PERFORM ADD-ISC.
51360
                                                                                                                                                                            C98970
513T0
51380
                                                                                                                                                                            C98970
 51390
                                                                                                                                                                            C98970
51400
                                                                                                                                                                            C98970
51490
                          GO TO READ-DATA.
                                                                                                                                                                            C98970
51500
51510
                RESET-HMC-'LINE-NI.
MOVE ZERO TO CNT.
                                                                                                                                                                            C989T0
51520
                RESET-HMC-LINE-1.
ADD 1 TO CNT-
51530
                                                                                                                                                                            C98970
               MOVE ZERO TO HMC-NI [CNT].

IF CN; 15 LESS THAN NO-WDC-COLS GO TO RESET-HMC-LINE-1.

END-RESET-NI. EXIT.
51550
                                                                                                                                                                            C98970
51560
                                                                                                                                                                            C98970
51540
                                                                                                                                                                            C98970
 52000
                                                                                                                                                                            C98970
                          MOVE ZERO TO POS-WDC.
MOVE LERO TO CNT.
52010
                                                                                                                                                                            C98970
52020
                                                                                                                                                                            C98970
52030
52040
                PROC-WDC-/.
ADD 1 TO CNT.
                                                                                                                                                                            C98970
                         ADD 1 10 CNT.

MOVE WDC-LIST [CNT] TO WDC-TEMP.

IF WDC IS LESS THAN WDC-TEMP GO TO END-PROC-WDC.

IF WDC IS EQUAL TO WDC-TEMP GO TO PROC-WDC-C.

IF CNT IS LESS THAN NO-WDC-COLS GO TO PROC-WDC-A.
 52050
                                                                                                                                                                            C989T0
52060
                                                                                                                                                                            C98970
52070
                                                                                                                                                                            C98970
52080
                                                                                                                                                                            C98970
                PROC-WDC-L.
MOVE UNT TO POS-WDC.
52100
                                                                                                                                                                            C98970
                END-PROC-WOL. EXIT.
OUTPUT-LINE-OF-NI-DATA.
MOVE ZERO TO HMG-FREO-TOTAL-NI.
MOVE ZERO TO CNI.
52190
                                                                                                                                                                            C98970
 52200
                                                                                                                                                                            C98970
52300
52310
                                                                                                                                                                            C98970
               MOVE ZERO TO CNT.

SUM-NI-COL.

ADD 1 TO CNT.

MOVE (UM-WDC-COL [CNT) TO TEMP-INDEX.

ADD HMC-NI LTEMP-INDEX] TO HMC-FREG-TOTAL-NI.

IF CN: IS LESS FHAN SUM-INDEX GO TO SUM-NI-COL.

MOVE 'WO TO ISOCHRONAL.

MOVE (OL-NO [1] TO TEMP-INDEX.

MOVE HMC-NI LTEMP-INDEX] TO MA-HPO.

MOVE LOL-NO [2] TO TEMP-INDEX.

MOVE HMC-NI [2] TO TEMP-INDEX.

MOVE HMC-NI [TEMP-INDEX] TO MA-PE.

MOVE HMC-NI [TEMP-INDEX] TO MA-PE.

MOVE HMC-FIED-TOTAL-NI TO NUMA.

IF MA-HPO IS EQUAL TO ZERO AND

MA-ZE IS EQUAL TO ZERO AND

NUMA 15 EQUAL TO ZERO GO TO END-OUTPUT-LIME-NI-DATA.

WRITE TAPE-FILE FROM REC-OUT.

ADD 1 TO NO-REC-TAPE.

PERFORM RESET-HMC-LINE-NI THRU END-RESET-NI.

END-OUTPUT-LINE-NI-DATA. EXIT.
                                                                                                                                                                            C98970
52320
                                                                                                                                                                             C98970
52330
                                                                                                                                                                            C98970
52340
52350
                                                                                                                                                                            CORSTO
 52360
523T0
                                                                                                                                                                             COASTO
 52380
                                                                                                                                                                            C98970
                                                                                                                                                                            C98970
 52390
52400
 52410
52420
                                                                                                                                                                            C98970
 52430
                                                                                                                                                                            C98970
 52440
52450
                                                                                                                                                                            C98970
 52520
                                                                                                                                                                            C98970
 52530
                                                                                                                                                                             C98970
 52580
                                                                                                                                                                            C98970
 52590
                 END-OUTPUT-LINE-NI-DATA. EXIT.
                                                                                                                                                                             C98970
                OUTPUT-LINE-OF-ISC-DATA.

MOVE ZERO TO HMC-FREO-TOTAL-ISC.

MOVE ZERO TO CNT.
52600
                                                                                                                                                                             C98970
52 TOO
 52710
                                                                                                                                                                             C98970
                        -15C-CUL.

ADD 1 TO CNT.

MOVE NUM-WDC-COL [CNT] TO TEMP-INDEX.

ADD HMC-ISC [TEMP-INDEX] TO HMC-FREQ-TOTAL-ISC.

1F LNI 1S LESS THAN SUM-INDEX 60 TO SUM-ISC-COL.

MOVE ONE TO ISOCHNONAL.

MOVE COL-NO [1] TO TEMP-INDEX.

MOVE HMC-ISC [TEMP-INDEX] TO MA-HPO.

MOVE LOL-NO [2] TO TEMP-INDEX.

MOVE HMC-ISC [TEMP-INDEX] TO MA-PE.

MOVE HMC-ISC [TEMP-INDEX] TO MA-PE.

MOVE HMC-ISC [TEMP-INDEX] TO MA-PE.
52720
                 SUM-15C-CUL
                                                                                                                                                                            COASTO
52 T30
                                                                                                                                                                             C98970
 52 T40
                                                                                                                                                                             C98970
52750
                                                                                                                                                                            C98970
 52760
                                                                                                                                                                            C98970
 52710
                                                                                                                                                                             C98970
 52 T80
                                                                                                                                                                            C98970
52790
                                                                                                                                                                             C98970
                                                                                                                                                                             C98970
52010
                                                                                                                                                                            C98970
52820
                                                                                                                                                                            C98970
```

```
IF MA-HPO IS EQUAL 70 ZERO AND
MA-PE IS EQUAL 70 ZERO AND
NUMA IS EQUAL TO ZERO GO 70 END-OUTPUT-LINE-ISC-DATA.
WRITE 7APE-FILE FROM REC-OUT.
52830
                                                                                                                      C98970
52840
                                                                                                                      C98970
52850
                                                                                                                      C08970
52920
                                                                                                                      C98970
                 WRITE /AFE-TILE FROM RCC-TOTAL ADD 1 TO NO-REC-TAPE.
PERFORM RESET-HMC-LINE-ISC THRU END-RESET-ISC.
52930
52980
                                                                                                                       C08970
           ENU-OUTPUT-LINE-ISC-DATA.
52990
                                                       EXIT.
                                                                                                                      C98970
53000
53040
          OUTPUT-IABLE-END,
PERFORM OUTPUT-LINE-OF-NI-DATA THRU END-OUTPUT-LINE-NI-DATA.
                                                                                                                      C98970
53300
                 PERFORM OUTPUT-LINE-OF-ISC-DATA THRU
                                                                       END-OUTPUT-LINE-ISC-DATA.
53310
                                                                                                                      C98970
53481
53485
                                                                                                                      C98970
                 IF IDENI IS EQUAL TO 191 80 TO CLOSE-FILES. GO TO HEXT-BUC.
                                                                                                                       C08970
53490
                                                                                                                      C98970
          CLOSE-TABLE.

MOVE .9: TO IDENT.

GO 70 OUTPUT-TABLE-END.
53500
53510
                                                                                                                       C98970
53520
                                                                                                                      C98970
          OUTPUT-LINE.

PERFORM OUTPUT-LINE-OF-NI-DATA THRU END-OUTPUT-LINE-NI-DATA.

PERFORM OUTPUT-LINE-OF-ISC-DATA THRU

END-OUTPUT-LINE-ISC-DATA.
53700
53740
                                                                                                                      C98970
53840
                                                                                                                       C98970
53A50
                                                                                                                       C98970
          GO TO NEXT-HMC.
RESET-HMC-LINE-ISC.
53890
                                                                                                                      C98970
          MOVE ZENO 70 CNT.

RESET-HMC-LINE-2.

ADD I TO CNT.

MOVE ZENO TO HMC-ISC [CN7].

IF CNT IS LESS 7HAN NO-WDC-COLS GO TO RESET-HMC-LINE-2.
53910
                                                                                                                       C98970
53920
                                                                                                                       C98970
53930
53940
                                                                                                                      C98970
53950
                                                                                                                      C98970
           END-RESET-ISC. EXIT.
53990
54000
           ADD-NI.
                                                                                                                       C98970
                 MOVE ONE TO NI-LINE-FLAG.
ADD MA TO HMC-NI [POS-WDC].
54010
54020
                                                                                                                      C98970
54100
           ADD-ISC.
                 MOVE ONE TO ISC-LINE-FLAG.
ADD MA TO HMC-ISC (POS-WDC).
                                                                                                                      C98970
54120
           CLOSE-FILES.
COMPUTE CNT > NO-REC-7APE
55000
55010
                                                                   - NO-REC-TAPE
                                                                                                 / DF . DF.
                                                                                                                      C98970
55020
                  IF CHT IS EQUAL TO ZERO GO TO CF-3.
55030
                                                                                                                       C08970
                  WRITE TAPE-FILE FROM NINE.
                                                                                                                      C98970
                 ADD 1 70 CNT.
IF CNT IS LESS THAN BF GO TO CF-2.
55050
                                                                                                                       C98970
55060
                                                                                                                       C98970
          CF-3.
55140
                                                                                                                      C98970
                 DISPLAY: NO TAPE RECS: NO-REC-TAPE UDISPLAY: NO OF W.U.C.: NO-MUC UPON CONSOLE.
DISPLAY: END OF JOB C9897: UPON CONSOLE.
                                                                                         UPON CONSOLE.
55165
                                                                                                                       C98970
55190
                                                                                                                      C98970
55200
                  CLOSE IN-FILE-DB,
                         OUT-DATA,
55220
                                                                                                                      C98970
55235
                        IN-FILE-ISC WITH LOCK.
                                                                                                                      C98970
55290
70000
                 GORACK.
          READ_ISC_A-C.
READ_IN-FILE-ISC INTO NO-ISC AT END GO TO END-RIAC.
                                                                                                                       C98970
70010
                  MOVE ZERO TO KHT.
70020
                                                                                                                       C98970
70030
                                                                                                                      C98970
                 ADD I TU KNY.

READ IN-FILE-ISC INTO ISC-A-C AT END 60 TO END-RIAC.

MOVE ISC-TN TO ISC-AC-TN EKNYJ.

IF ISC-WK TO ISC-AC-WK EKNYJ.

IF ISC-WK IS LESS THAN MIN-ISC-WEEK MOVE ISC-WK
70040
70050
                                                                                                                      C98970
70060
70070
70075
                                                                                                                      C98970
                 TO MIN-ISC-WEEK.

IF KNT IS LESS THAN NO-ISC-AC GO TO RIAC.
70076
70080
          END-RIAC. EXIT.

CHECK-ISC GRONAL.

IF SERIAL-NO IS NOT EQUAL TO PREV-TESTED-SN 80 TO CHECK-I-2.
70090
                                                                                                                       C98970
70200
70210
                                                                                                                      C98970
                  IF IS-FLAG IS EQUAL TO TWO GO TO END-CI.

IF IS HRONAL IS EQUAL TO ONE AND WEEK IS NOT LESS THAN MIN-ISC-WEEK, THEN GO TO END-CI.
70220
                                                                                                                      C98970
70230
70232
                                                                                                                      C08970
70240
           CHECK-1-2.
                                                                                                                      C98970
70250
                 MOVE TWO TO ISCHRONAL.

IF WELK IS LESS THAN MIN-ISC-WEEK 60 TO END-C1.
                                                                                                                      C98970
70260
                                                                                                                      C98970
70270
                  MOVE ZENO TO CHT.
          MOVE ZERO TO COT.

CHECK-1-1.

ADD 1 TO COT.

MOVE ISC-AC-TN [CN7] TO ISC-TEMP.

IF SENIAL-NO IS LESS THAN ISC-TEMP GO TO CHECK-1-4.

IF SENIAL-NO IS EQUAL TO ISC-TEMP GO TO CHECK-1-1A.

IF CNT IS LESS THAN NO-ISC-AC GO TO CHECK-1-1.
70280
                                                                                                                       C98970
70290
70300
                                                                                                                      C98970
70310
                                                                                                                      C98970
70320
                                                                                                                      C98970
70330
                                                                                                                      C98970
70340
           CHECK-I-4.
MOVE (NO TO ISC-FLAG.
GO TO CHECK-I-3.
                                                                                                                       C98970
                                                                                                                      C98970
70360
                                                                                                                      C98970
70370
70380
          CHECK-I-IA.
                 MOVE ISC-AC-WE CONT TO WEEK-TEMP.

IF WELK-TEMP IS EQUAL TO WEEK OR WEEK IS GREATER THAN WELK-TEMP MOVE ONE TO ISCHRONAL.
                                                                                                                      C98970
70390
                                                                                                                      C98970
70400
                                                                                                                      C98970
                 MOVE ONE TO ISC-FLAG.
```

```
CHECK-1-3.

MOVE SERIAL-NO TO PREV-TESTED-SN.

END-CI. EXII.

READ-1N-TITLE-DATA.

MOVE ZERO TO CNT.

READ-WDC-1NPUT.

READ IN-FILE-ISC INTO WDC-INPUT.

AT END GO TO END-RITD.
70430
70440
                                                                                                                                                                      C98970
C98970
 70450
                                                                                                                                                                      C98970
C98970
80000
80010
                                                                                                                                                                      C98970
C98970
 80020
80030
80040
                                                                                                                                                                      C98970
               AT END GO TO EMD-RITD.

ADD 1 TO CNT.

MOVE WOL-IN TO WDC-LIST CCNT1.

1F CNT 1S LESS THAN 21 GO TO READ-WDC-1NPUT.

READ-UNSC. MEU-MAINT-COLS.

REAU "H-FILE-ISC INTO NUMBER-CAND.

AT END GO TO EMD-RITD.

MOVE HUMBER-ITEMS TO SUM-INDEX.

MOVE ZERO TO CNT.

REAU-UNSCHEU-COLS.

READ-INSET LESISC INTO MIMBER-CARD.
                                                                                                                                                                      C98970
C98970
80050
 80060
 80080
                                                                                                                                                                      C98970
 80100
 80110
                                                                                                                                                                      C98970
 80120
80130
                                                                                                                                                                      C98970
 80140
80150
                                                                                                                                                                      C98970
                         READ IN-FILE-ISC INTO NUMBER-CARD,
AT END GO TO END-RITD.
 80160
                                                                                                                                                                      C98970
 80170
                                                                                                                                                                      C98970
                         AT END GO TO END-RITD.

ADD 1 TO CNT.

MOVE NUMBER-ITEMS TO SUM-WDC-COL ECNT).

IF CN 15 LESS THAN SUM-INDEX GO TO READ-UNSCHED-COLS.

MOVL ?ENO TO CNT

READ IN-FILE-ISC INTO NUMBER-CARD.

AT END GO TO END-RITD.

MOVE NUMBER-ITEMS TO NUMBER-SEWUC.
 80180
                                                                                                                                                                       C98970
 80190
                                                                                                                                                                      C98970
 80200
                                                                                                                                                                      C98970
 80290
                                                                                                                                                                      C98970
  80300
80310
80320
80330
80340
                MOVE WIMDER-1...
READ-SGBUC-DATA,
READ IN-FILE-ISC INTO NUMBER-CARD,
AT END GO TO END-RITD.
                                                                                                                                                                      C98970
                                                                                                                                                                      C98970
                                                                                                                                                                      C98970
 80350
                                                                                                                                                                      C98970
80350 ADD : TO CNT.
80370 MOVE NUMBER-ITEMS TO COL-NO [CNT].
80380 MOVE I:PUT-SG-CODE TO SG-WUC [CNT].
80390 IF CNT IS LESS THAN NUMBER-SGWUC 60 TO READ-SGWUC-DATA.
80790 ENU-RITU. EXIT.

PLACE COBOL SOURCE BEFORE THIS CARD
7/CMG_IFGIN DJ .SPACE>(CYL.[1:1])

00000 G.T TFG
01001 019999 REPLACE
TFG DT01 11 0202080
                                                                                                                                                                      C98970
C98970
                                                                                                                                                                      C98970
                                                                                                                                                                      C98970
C98970
                                                                                                                                                                  1440 CDS
                                                                                                                                                                 C98970'T
 TEG DTO1
                           11 0202080
    57000236 331
57000237 331
57000243 324
57000244 331
                          331
324
     57002545
     58000776
     58000901
                           331
331
     590000002
     59000003
     59000005
                           331
331
     590000006
                           331
     59000010
                           331
     59000012
     59000015
     59000018
     59000019
                           331
                          331
331
     59000026
     59000030
     59000054
                           324
     59000057
                          324
324
     59000058
                         324
331
     50000059
     59000104
     59000105
59000108
                         331
324
     59000110
                           324
                          324
     59000119
     59000141
     59000143
                           324
     59000144
                           324
     59000147
                           324
     59000151
```

6.15.2 UNSCHEDULED MANHOUR AND NORM HOUR

```
SELECT IN-FILE-D-B
                                                                                        ASSIGN TO UT-S-TULE
                                                                                                                                                              C98970
02120
                       SELECT INSTITUTE AREA.
SELECT INSTITUTE AREA.
SELECT MSG-FILE
SELECT MSG-FILE
                                                                                                                                                              C98970
C98970
02130
                                                                                       ASSIGN TO DA-S-DT01
02150
                                                                                                                                                               C98970
02160
                                                                                       ASSIGN TO DA-S-OTOR
                                                                                                                                                               C98970
                       RESURVE 1 ALTERNATE AREA.
SELECT OUT-FILE-1
RESURVE 1 ALTERNATE AREA.
                                                                                                                                                               C98970
                                                                                       ASSIGN TO UT-S-TU24
02180
                                                                                                                                                               C98970
                                                                                                                                                               C98970
02190
                       SELECT OUT-FILE-2
RESERVE 1 ALTERNATE AREA.
02200
                                                                                       ASSIGN TO UT-S-TU22
                                                                                                                                                               C98970
02210
                                                                                                                                                               C98970
               DATA DIVISION.
                                                                                                                                                               C98970
10000
               FILE SECTION.
 10010
                                                                                                                                                               C98970
              FILE SECTION.
FD IN-FILE-D-R
RECOMDING MODE IS F
BLOCK CUNTAINS 40 RECORDS
RECORD CONTAINS 70
LABEL HECORDS ARE OMITTED
DATA RELONDS ARE IN-REC-D-B.
OI IN-REC-D-H SYNC.
                                                                                                                                                               C98970
10100
10120
                                                                                                                                                               C98970
10130
                                                                                     CHARACTERS
                                                                                                                                                              C98970
10140
                                                                                                                                                              C98970
10160
                                                                                                                                                               C98970
10200
 10210
                        02 FILLER
                                                                                   PICTURE XE701.
                                                                                                                                                               C98970
                                                                                                                                                               C98970
 10220
                       IN-FI'-E-ISC
RECORDING MODE IS F
BLOCK CONTAINS 20 RECORDS
                                                                                                                                                               C98970
C98970
C98970
               FD
11300
11320
11330
                        RECOFD CONTAINS 80
LABEL RECORDS ARE STANDARD
DATA RECORDS ARE IN-REC-ISC.
11340
11350
                                                                                                                                                               C98970
                                                                                      CHARACTERS
11360
                                                                                                                                                               C98970
                       DATA RECORDS ARE IN-REC-ISC
IN-REC-ISC SYNC.
02 FILLER
OUT-FILE-I
RECORDING MODE IS F
BLOCK CONTAINS 90 RECORDS
RECOPD CONTAINS 20
LAREL RECORDS ARE OMITTED
DATA RECORDS ARE OUT-REC-1.
11400
               01
                                                                                                                                                               C98970
                                                                                   PICTURE XEBOJ.
                                                                                                                                                               C98970
 12100
                                                                                                                                                               C98970
12120
12130
                                                                                                                                                               CORSTO
12140
                                                                                     CHARACTERS
                                                                                                                                                               C98970
                                                                                                                                                               C98970
                                                                                                                                                               C98970
 12160
                        OUT-PEC-1 SYNC.
 12200
                                                                                                                                                               C98970
12210
                       02 FILLER
                                                                                   PICTURE XE 201.
13300
                                                                                                                                                               C98970
                       MSU-FILE
RECUPJING MODE IS F
BLOCK CONTAINS 20 RECORDS
RECURU CONTAINS 80
LABEL RECORDS ARE STANDARD
 13320
                                                                                                                                                               C98970
13330
                                                                                                                                                               C98970
13340
                                                                                     CHARACTERS
                                                                                                                                                               C98970
 13350
                       LABEL RECORDS ARE STANDARE
DATA RECORDS ARE MSG-REC.
MSG-PEC SYNC.
02 F4LLER
OUT-F1LE-2
RECOPUTING MODE IS F
BLOCK CONTAINS 90 RECORDS
RECOFU CONTAINS 20
                                                                                                                                                               C98970
13360
                                                                                                                                                               C98970
               01
 13400
                                                                                                                                                               C98970
 13410
                                                                                   PICTURE XESO 1.
                                                                                                                                                               C98970
 14100
                                                                                                                                                                C98970
 14120
                                                                                                                                                               C98970
                                                                                                                                                               C98970
 14130
14140
14150
                                                                                     CHARACTERS
                                                                                                                                                               C9A970
                       LABEL RECORDS ARE OMITTED DATA RECORDS ARE OUT-REC-2.
                                                                                                                                                               C98970
14160
                                                                                                                                                               C98970
              01 OUT-REC-2 SYNC.

02 FILLER

WOHKING-STURAGE SECTION.

77 WUC-FLAG INC PICTURE X

77 FLT-FLAG S.NC PICTURE X V.

77 CUR-65 SYNC PICTURE X V.

77 CUR-85 SYNC PICTURE X V.

77 CUR-16C SYNC

77 CUR-16C SYNC

77 KNT SYNC COMPUTATIONAL

77 WEFK-(EMP SYNC

77 DELTA-FLT-HRS SYNC

77 CUR-51-HRS SYNC

77 CUR-FLI-HRS SYNC

77 FLAG SYNC COMPUTATIONAL

77 HMC-TEMP SYNC

77 NO-HPC SYNC COMPUTATIONAL
 14200
                                                                                                                                                               C98970
14210
                                                                                   PICTURE XE201.
                                                                                                                                                               C98970
 30000
                                                                                                                                                               C98970
 30012
                                                                                  VALUE SPACE.
30c15
                                                                                                                                                               C98970
                                                                            VALUE SPACE.
 30016
                                                                                                                                                               C98970
30017
                                                                                                                                                               C98970
                                                                                   PICTURE 999.
PICTURE XE 8].
30020
                                                                                                                                                               C98970
 30030
                                                                                                                                                               C98970
                                                                                   PICTURE X.
PICTURE S999.
PICTURE 999.
PICTURE S999.
30040
                                                                                                                                                               C98970
30050
                                                                                                                                                               C98970
30060
                                                                                                                                                               C98970
30070
                                                                                                                                                               C98970
                                                                                   PICTURE 5999.
PICTURE S999999.
PICTURE S999999.
PICTURE S999 VALUE ZERO.
PICTURE XXX.
PICTURE S999 VALUE CLOO.
PICTURE S9(7) VALUE ZERO.
PICTURE S9(7) VALUE ZERO.
30 uA0
                                                                                                                                                               C98970
C98970
 30090
30100
                                                                                                                                                               C98970
              77
77
77
77
77
30110
                                                                                                                                                               C98970
                       NO-HEC-1 SYNC COMPUTATIONAL
NO-HEC-1 SYNC
NO-HEC-2 SYNC
30120
                                                                                                                                                               C98970
                                                                                                                                                               C98970
30130
                       MAX-NO-HMC SYNC COMPUTATIONAL
30150
                                                                                  AL
PICTURE S999 VALUE ZERO.
PICTURE S999.
PICTURE X VALUE 121.
PICTURE X VALUE 121.
PICTURE X VALUE 131.
PICTURE X VALUE 191.
PICTURE X VALUE SPACE.
PICTURE X (8) VALUE SPACE.
PICTURE X VALUE SPACE.
PICTURE X VALUE SPACE.
PICTURE X VALUE SPACE.
PICTURE X VALUE SPACE.
X63) X653.
30160
                                                                                                                                                               C98970
              77
77
77
30170
                       CNT SINC COMPUTATIONAL
                                                                                                                                                               C98970
                       ONE SYNC
                                                                                                                                                              C98970
30380
30390
                       THREE SYNC
FOUR SYNC
ISC-TEMP SYNC PICTURE XED-
PREV-TESTED-SN SYNC PICTURE X 63
ISC-FLAG SYNC PICTURE X
MIN-15C-WEEK SYNC COMPUTATIONAL PICTURE
X
MIRWUC SYNC PICTURE XXX.
PICTURE XXX.
30391
30392
                       THREE SYNC
                                                                                                                                                               C98970
C98970
              77
77
77
77
30400
30410
                                                                                                                                                               C98970
                                                                                                                                                               C98970
30420
30430
                                                                                                                                                               C98970
               77
$0500
                                                                                                                                                               CORSTO
30506
                                                                                                                                                               C98970
                                                                                                                                                               C98970
```

```
SUM-NORM SYNC
SYNC SH-HAM-NUS
SYNC
                                                  PICTURE S9(6) VALUE ZERO.
PICTURE S9(6) VALUE ZERO.
PICTURE S9(5) VALUE ZERO.
                                                                                                                         C98970
30520
30530
30540
                                                                                                                         C98970
                                                                                                                         C98970
                  CUR-17
                                                  PICTURE 9.
                                                                                                                         C98970
30550
                 NO-ISC SYNC.
02 FILLER
02 NJ-ISC-AC
02 FILLER
                                                                                                                         C98970
31010
31020
           01
                                                               PICTURE XX.
PICTURE 5999.
PICTURE XE753.
                                                                                                                         C98970
C98970
31030
                                                                                                                         C98970
31040
31050
           01
                  ISC-A-C SYNC
                                                                                                                         C98970
                                                               PICTURE XX.
PICTURE XI.
PICTURE XX.
PICTURE 999.
                  02 FILLER
02 ISC-TN
02 FILLER
                                                                                                                         C98970
31070
                                                                                                                         C98970
 31000
31090
                        1-C-WK
                                                                                                                         C98970
                  02 FILLER
                                                                PICTURE XE657.
                                                                                                                         C98970
31100
                                                                                                                         C98970
 31200
            01
                  02 FILLER OCCURS 36 TIMES.
03 ISC-AC-TN PICTURE X683.
04 ISC-AC-WK COMPUTATIONAL PICTURE 5999.
 31205
                                                                                                                         COAGTO
                                                                                                                         C98970
 31210
 31220
                                                                                                                         C98970
                  DATA-BANK-INPUT SYNC.
                                                                                                                         C98970
 31300
            01
                                                                PICTURE XC53.
                                                                                                                         C98970
 31310
 31320
                  02 STRINT-NO
                                                                PICTURE XEAJ.
                                                                                                                         C98970
 31340
                   02
                         WUC
                                                                PICTURE XESJ.
                                                                                                                          C98970
                        NUC-B REDEFINES WUC.
(3 WUC-2
03 FILLER
 31350
31360
                                                                                                                         C98970
                                                                PICTURE XX.
PICTURE XXX.
PICTURE X.
 31370
                                                                                                                         C98970
                         FILLER
                                                                                                                         C98970
 31380
                  02
                                                   PICTURE XXX.
PICTURE S999.
PICTURE S9[4].
 31390
                  02
                                                                                                                          C98970
 31400
                  02
                         UNITS
                                                                                                                         C98970
                        MAN-HR
FILLER
NORM-HR
 31401
31402
31403
                                                                                                                         C98970
                                                   PICTURE XE33.
PICTURE S9E43.
PICTURE S9E43.
                                                                                                                         C98970
                                                                                                                         C98970
                  02
 31404
                  02
                         NORS-HR
                                                                                                                         C98970
                                                  PICTURE MESI.
PICTURE 9.
 31405
                  02
                        FILLER
                         IULHT
                                                                                                                          C9070
                  02 FILLER PICTURE X(4).
02 FLI-HRS PICTURE S9(6).
02 FILLER PICTURE X(11).
0UT-DATA SYNC.
 31450
                                                                                                                         C98970
 31460
                                                                                                                         C98970
                                                                                                                         C98970
C98970
 31470
 31500
            01
                        WUC-OUT
HMC-OUT
FILLER
 31510
                  02
                                                   PICTURE XES J.
                                                                                                                          C98970
                                                                PICTURE XXX.
PICTURE X VALUE SPACE.
PICTURE S916J.
PICTURE X VALUE SPACE.
31520
31530
                  02
                                                                                                                          C98970
                                                                                                                          C98970
                        OUS
FILLER
 31540
                   02
                                                                                                                          C98970
 31550
                  02
                                                                                                                          C98970
                                                  PICTURE X VALUE SPACE.
PICTURE X VALUE 181.
 31560
                   02
                         ISC-OUT
                                                                                                                          C98970
 31570
                  02 FILLER
02 DATA-TYPE
                                                                                                                          C98970
                                                                                                                          C98970
 31580
 31590
                   02 FILLER
                                                                                                                          C98970
                  NINE SYNC.
 31800
            01
                                                                                                                          C98970
                                                                PICTURE XC203 VALUE
 31810
                                                                                                                          C98970
                                                                                                                         C98970
C98970
 31820
                                                1999999999999999991.
           01
                  SPEC-WUC SYNC.
 32000
                  SPEC-WUC SYNC

- 05 CI-MPF - 05 CI-MA1-1

05 CI-MA1-2

05 CI-MA1-3

05 CI-PEHI

05 CI-PRAN

05 CI-PREFLT

05 CI-PROST

05 CI-SMPOST
 32010
                                                   PICTURE XEST.
                                                                                                                          C98970
                                                   PICTURE XC51.
PICTURE XC51.
PICTURE XC51.
PICTURE XC51.
PICTURE XC51.
 32020
32030
                                                                                                                          C98970
                                                                                                                          C98970
                                                                                                                          C98970
 32040
 32050
                                                                                                                          C98970
 32060
                                                                                                                          C98970
 32070
                                                   PICTURE XES 3. PICTURE XES 3.
                                                                                                                          COROTA
 32080
                                                                                                                          C98970
                                                   PICTURE XES J. PICTURE 99.
                         C1-SHPOST
GAP-WK-1
 32090
32100
                   05
                                                                                                                          C98970
                                                                                                                          C98970
                   05
                       GAP-WK-2
FILLER
                                                   PICTURE 99.
PICTURE XE313.
                                                                                                                          C98970
C98970
 32110
                   0S
 32120
                   05
            PROCEDURE DIVISION.
 50000
                                                                                                                          C98970
 50010
            OPEN-FILES.
                                                                                                                          C98970
                  OPEN INPUT IN-FILE-D-B, IN-FILE-ISC.
OPEN OUTPUT MSG-FILE.
OPEN GUTPUT OUT-FILE-1, OUT-FILE-2.
PERFORM READ-ISC-A-C THRU END-RIAC.
 50020
                                                                                                                         C98970
 50030
                                                                                                                          C98970
 50040
                                                                                                                          C98970
 50050
                                                                                                                          C98970
 50060
            READ-INITIAL .
                                                                                                                          C98970
                  READ IN-FILE-D-B INTO DATA-BANK-INPUT,
AT END GO TO CLOSE-FILES.
 50070
                                                                                                                         C98970
50080
                                                                                                                          C98970
 50100
            CHECK-DATA
                                                                                                                          C98970
C98970
 50120
                  IF 1DENT IS EQUAL TO 3 AND MUC-2 IS EQUAL TO 1031 90 TO
                  IF IDENT IS EQUAL TO 3 AND MUC-2 IS EQUAL TO 1041 60 TO

PROC-II-1.

PROC-II-2A.

1F IDENT IS EQUAL TO 4 60 TO PROC-II-2B.

GO TO MEAD-INITIAL.
S0130
S0140
                                                                                                                          C98970
                                                                                                                          C98970
C98970
 50 I SU
 50160
                                                                                                                          C98970
 50170
                                                                                                                          C98970
C98970
 50180
50190
```

```
PROC-11-1.

PERFORM CHECK-ISCHRONAL THRU END-CI.

MOVE 1SCHRONAL TO CUR-ISC.

MOVE 1UENT TO CUR-IO.

MOVE WUC TO CURWUC.

MOVE WUC TO CURWUC.

MOVE WEEK TO CURWEEK.

MOVE SERIAL-NO TO CUR-SER-NO.

MOVE FLT-HRS TO CUR-FLT-HRS.

MOVE T #0 TO CUR-65.

IF NORM-HR LESS THAN ZERO MOVE ONE TO CUR-65.
  50200
50210
                                                                                                                                                                                           C98970
   50220
                                                                                                                                                                                           C98970
  50222
                                                                                                                                                                                           C98970
   50230
                                                                                                                                                                                           C98970
   50240
                                                                                                                                                                                            C98970
  50250
                                                                                                                                                                                           C98970
  50251
                                                                                                                                                                                           C98970
   50252
                                                                                                                                                                                            C98970
  50253
                                                                                                                                                                                           C98970
   50260
                            T-SET.

MOVE ONE TO FLT-FLAG.

IF WUC EQUAL TO CI-PREFLT MOVE TWO TO FLT-FLAG.

IF WUC EQUAL TO CI-BPOST MOVE TWO TO FLT-FLAG.

IF WUC EQUAL TO CI-SHPOST MOVE TWO TO FLT-FLAG.

COMPUTE SUM-NORM > 0.

IF FLT-FLAG EQUAL TO ONE AND NORM-HR GREATER THAN ZERO

MOVE NORM-HR TO SUM-NORM.
  50270
                                                                                                                                                                                           C08070
  50271
                                                                                                                                                                                           C98970
   50272
  50273
                                                                                                                                                                                            COA970
   50274
                                                                                                                                                                                           C98970
  50275
                                                                                                                                                                                            C98970
  50276
                                                                                                                                                                                           C98970
                             MOVE MAN-HR TO SUM-MAN-HR.
                                                                                                                                                                                           C98970
   50280
  50290
50300
                                                                                                                                                                                            C98970
                   ACC-SET.
                             READ IN-FILE-D-B INTO OATA-BANK-INPUT
                                                                                                                                                                                           C98970
                             READ IN-FILE-D-B INTO GATA-BANK-INPUT
AT END GO TO CLOSE-FILES.

PERFORM CHECK-ISCHRONAL THRU END-CI.

IF 15C-HKONAL 15 NOT EQUAL TO CUR-ISC GO TO SET-BREAK.

IF DENT NOT EQUAL TO CUR-IO GO TO SET-BREAK.

IF WUC NOT EQUAL TO CURWUC GO TO SET-BREAK.

IF SERIAL-NO NOT EQUAL TO CUR-SER-NO GO TO SET-BREAK.

MOVE THO TO DATASS.
  50310
                                                                                                                                                                                           C98970
  50315
                                                                                                                                                                                            C98970
  50320
                                                                                                                                                                                           C98970
   50322
  50330
50340
                                                                                                                                                                                           C98970
                                                                                                                                                                                           C98970
  50345
50346
                             MOVE TWO TO DATA-65.

IF NORM-HR LESS THAN ZERO MOVE ONE TO DATA-65.
                  IF NORM-HR LESS THAN ZERO MOVE ONE TO DATA-65.

GO TO CHECK-TYPE.

NOT-SP-TYPL.

SUBTRACT CURWEEK FROM WEEK GIVING WEEK-TEMP.

IF WEK-TEMP NOT EQUAL TO 1

GO TO INTERNAL-BREAK.

ADD MAN-HR TO SUM-MAN-HR.

MOVE ONE TO FLT-FLAG.

IF WUC EQUAL TO CI-PREFLT MOVE TWO TO FLT-FLAG.

IF WUC EQUAL TO CI-SHPOST MOVE TWO TO FLT-FLAG.

IF WUC EQUAL TO CI-SHPOST MOVE TWO TO FLT-FLAG.

IF FLT-FLAG EQUAL TO ONE AND NORM-HR GREATER THAN ZERO

ADD NORM-HR TO SUM-NORM.

IF FLT-FLAG EQUAL TO TWO COMPUTE SUM-NORM > 0.
                                                                                                                                                                                           C98970
   50347
  50348
                                                                                                                                                                                           C98970
  50350
                                                                                                                                                                                           C98970
  50360
50370
                                                                                                                                                                                           C98970
                                                                                                                                                                                           C98970
   50380
  50385
                                                                                                                                                                                           C98970
   50390
  50400
                                                                                                                                                                                           C98970
  50410
                                                                                                                                                                                           C98970
  50420
  50421
                                                                                                                                                                                           C08970
  50425
                                                                                                                                                                                           C98970
                  MOVE NEEK TO CURWEEK.

MOVE FLT-HRS TO CUR-FLT-HRS.

IF CUR-65 EQUAL TO TWO OR OATA-68 EQUAL TO TWO MOVE TWO TO CUR-65.

MOVE 1UENT TO CUR-ID.

GO TO ACC-SET.

SET-BREAK.
  50440
                                                                                                                                                                                           C98970
  50442
                                                                                                                                                                                           C98970
  50443
                                                                                                                                                                                           C98970
  50444
                                                                                                                                                                                            C98970
  50446
                                                                                                                                                                                            C98970
  50450
  50460
                                                                                                                                                                                           C98970
                             PERFORM WRITE-1 THRU END-WRITE-1.
   50470
                                                                                                                                                                                           C98970
                             COMPUT: SUM-NORM > 0.
COMPUT: SUM-MAN-HR > 0.
  50472
  50474
                                                                                                                                                                                            C08070
                  GO TO CHECK-DATA.

INTERNAL-BHEAK.

PERFORM WRITE-1 THRU END-WRITE-1.
                                                                                                                                                                                           C98970
  50490
                                                                                                                                                                                            C98970
  50500
                                                                                                                                                                                           C98970
                             MOVE WEEK TO CURWEEK.

MOVE FLITHES TO CUR-FLITHES.

MOVE DAIA-65 TO CUR-65.

MOVE DAINT TO CUR-1D.

GO TO INIT-SET.
  50510
  50512
                                                                                                                                                                                            C98970
  50515
                                                                                                                                                                                           C98970
  50516
  50520
                                                                                                                                                                                            C98970
                             NOTE
  50530
                                                 WRITE NORM-HR AND MAN-HR TOTALS ON OUTPUT FILE.
                                                                                                                                                                                           C98970
                  WRITE-1.
END-WRITE-1. EXIT.
 50540
  50660
                                                                                                                                                                                           C98970
                   CHECK-TYPE. MOVE GHE TO WUC-FLAG.
  51000
  51010
                                                                                                                                                                                            C9A97D
                            MOVE GHE TO WUC-FLAG.

IF WUC EQUAL TO CI-MPF

IF WUC EQUAL TO CI-MAI-1

IF WUC EQUAL TO CI-MAI-2

IF WUC EQUAL TO CI-MAI-3

IF WUC EQUAL TO CI-PERI

IF WUC EQUAL TO CI-PERI

IF WUC EQUAL TO CI-PERI

IF WUC EQUAL TO CI-ITAN

MOVE TWO TO WUC-FL

IF WUC-FLAG EQUAL TO ONE GO TO NOT-SP-TYPE.

SUBTRACT CURWEEK FROM WEEK GIVING WEEK-TEMP.
                                                                                             MOVE TWO TO WUC-FLAG.
 51020
51030
                                                                                                                                                                                           C98970
                                                                                                                                                                                            C98970
  51040
                                                                                                                                                                                           COROTO
  51050
                                                                                                                                                                                           C98970
  51060
                                                                                                                                                                                           C98970
  51070
                                                                                                                                                                                           C98970
 51080
 51090
                                                                                                                                                                                           C98970
C98970
 S1100
S1110
                          TYPE.

IF WUC LESS THAN CI-PERI AND WEEK-TEMP GREATER THAN GAP-WK-1

GO TO INTERNAL-BREAK.

IF WUC GREATER THAN CI-MAI-3 AND WEEK-TEMP GREATER THAN

GAP-WK-2 GO TO INTERNAL-BREAK.

ADD MAN-HR TO SUM-MAN-HR.

IF NOIM-HR GREATER THAN ZERO ADD NORM-HR TO SUM-NORM.

MOVE WEEK TO CURVEEK.

MOVE FLI-HRS TO CUR-FLI-HRS.

IF DAIA-6S EQUAL TO TWO OR CUR-65 EQUAL TO TWO

MOVE 1DENT TO CUR-10.
                  SP-TYPE.
                                                                                                                                                                                            C98970
                                                                                                                                                                                           C98970
 51120
                                                                                                                                                                                           C98970
 51121
                                                                                                                                                                                          C98970
 51134
  51140
                                                                                                                                                                                           C98970
 51150
                                                                                                                                                                                           C98970
B1152
                                                                                                                                                                                           C98970
 51153
                                                                                                                                                                                           C98970
                            MOVE IDENT TO CUR-10.
 51154
 51160
```

```
C-11-2A.

PERFORM CHECK-ISCHRONAL THRU END-CI.

MOVE ISCHRONAL TO CUR-ISC.

MOVE WUC TO CURWUC.

MOVE SERIAL-NO TO CUR-SER-NO.

MOVE SERIAL-NO TO CUR-ID.

PERFORM WRITE-2 THRU END-WRITE-2.

MOVE WU TO CUR-65.

IF NO-M-HR LESS THAN ZERO MOVE ONE TO CUR-65.
55000
             PROC-11-24.
                                                                                                                                                COBSTO
55010
                                                                                                                                                 C989TO
55020
                                                                                                                                                 C989T0
55030
                                                                                                                                                 C98970
 55050
55060
                                                                                                                                                 CORSTO
55010
                                                                                                                                                 C98970
550T2
550T3
                                                                                                                                                 C98970
              SET-NEW.
                                                                                                                                                 C98970
                     -NEW.
COMPUTE SUM-NORM > 0.
IF NORM-HR GREATER THAN ZERO MOVE NORM-HR TO SUM-NORM.
MOVE UNITS TO SUM-MA.
IF UNITS EQUAL TO ZERO 00 TO SET-FLAG.
MOVE CURBUC TO WUC-OUT.
MOVE CURBUC TO ISC-OUT.
PERFORM WRITE-3 THRU END-WRITE-3.
READ IN-FILE-D-B INTO DATA-BANK-INPUT AT END 60 TO EOF-BRK.
55080
                                                                                                                                                 COAGTO
55081
                                                                                                                                                 C98970
55090
                                                                                                                                                 C989T0
55092
                                                                                                                                                 C989T0
55093
                                                                                                                                                 C98970
 55094
                                                                                                                                                 C98970
55095
                                                                                                                                                 C98970
55096
                                                                                                                                                 C98970
 55097
                      GO TO BHEAK-1.
55100
55130
              SET-FLAG.
                                                                                                                                                 C98970
                     READ IN-FILE-D-B INTO DATA-BANK-INPUT
                                                                                                                                                 C98970
                     AT END GO TO EOF-BRK.
PERFORM CHECK-ISCHRONAL THRU END-CI.
55140
                                                                                                                                                 C98970
55150
                                                                                                                                                 C98970
                     PERFORM CHECK-ISCHRONAL THRU END-CI.

IF 1DENT EQUAL TO CUR-ID

PERFORM WRITE-2 THRU END-WRITE-2.

IF 15C-RONAL NOT EQUAL TO CUR-ISC 60 TO BREAK-1.

IF WC NOT EQUAL TO CURWUC 60 TO BREAK-1.

IF SENIAL-NO NOT EQUAL TO CUR-SER-NO 60 TO BREAK-1.

IF 10ENT NOT EQUAL TO CUR-ID 60 TO BREAK-1.
55170
                                                                                                                                                 C98970
 55180
                                                                                                                                                 C98970
 55190
55200
                                                                                                                                                 C98970
 55210
                                                                                                                                                 C98970
                     MOVE TWO TO DATA-65.

IF NORM-HR LESS THAN ZERO MOVE ONE TO DATA-65.

IF CUR-55 EQUAL TO TWO OR DATA-65 EQUAL TO TWO MOVE TWO TO CUR-65.

IF NORM-HR GREATER THAN ZERO ADD NORM-HR TO SUM-NORM.
55212
                                                                                                                                                 C98970
                                                                                                                                                 C989T0
 55215
55216
55220
                                                                                                                                                 C98970
                                                                                                                                                 C98970
55230
55231
                     ADD UNITS TO SUM-MA.
IF UNITS NOT EQUAL TO ZERO GO TO INT-BREAK.
                                                                                                                                                 C98970
 55232
                      GO TO SET-FLAG.
                                                                                                                                                 C98970
55240
              INT-BREAK.
                                                                                                                                                 C98970
                     -GKEAR.

MOVE CURBUC TO BUC-OUT.

MOVE CURBISC TO ISC-OUT.

PERFORM WRITE-3 THRU END-WRITE-3.

COMPUTE SUM-NORM > 0.

GO TO SET-FLAG.
55250
                                                                                                                                                 C98970
55260
55270
                                                                                                                                                 C98970
                                                                                                                                                 C98970
 55280
55282
                                                                                                                                                 C98970
55284
55290
             BREAK-1.
COMPUTE SUM-NORM > 0.
COMPUTE SUM-MA > 0.
GO TO CHECK-DATA.
                                                                                                                                                 C98970
 55322
                                                                                                                                                 C98970
55324
55330
                                                                                                                                                 C98970
                                                                                                                                                 C98970
              WRITE-2.
             END-WRITE-2. EXIT. WRITE-3.
55470
                                                                                                                                                 C98970
 55480
                                                                                                                                                 C98970
 55462
                      IF CUR-65 EQUAL TO ONE GO TO END-WRITE-3.
                                                                                                                                                 C98970
             MOVE SPACE TO HMC-OUT.

DIVIDE SUM-MA INTO SUM-NORM GIVING OBS.

MOVE THREE TO DATA-TYPE.

WRITE OUT-REC-2 FROM OUT-DATA.

ADD 1 TO NO-REC-2.

END-WRITE-3. EXIT.
55500
                                                                                                                                                 C98970
 55510
55520
                                                                                                                                                 C98970
                                                                                                                                                 C989T0
55530
                                                                                                                                                 C98970
C98970
 55550
             EOF-BRK.
                     IF SUM-NORM EQUAL TO ZERO 60 TO CLOSE-FILES.
MOVE CURBUC TO WUC-OUT.
MOVE CUR-ISC TO ISC-OUT.
PERFORM WRITE-3 THRU END-WRITE-3.
60 TO CLOSE-FILES.
55552
                                                                                                                                                 C98970
55553
                                                                                                                                                 C989T0
 55554
                                                                                                                                                 C98970
55555
                                                                                                                                                 C98970
 55556
55560
555T0
              REMARK-2.
                                                                                                                                                 C98970
                                     COMPUTE RATIO OF MH TOTAL OVER MA TOTAL DATA BANK RECORD TYPE 4.
                                                                                                                                                 C989T0
                     NOTE
                                                                                                                                                 C98970
60000
              PROC-11-28.
                     PERFORM CHECK-ISCHRONAL THRU END-CI.
                                                                                                                                                 C989T0
                      MOVE ISCHRONAL TO CUR-ISC.
MOVE WUC TO CURWUC.
MOVE SERIAL-NO TO CUR-SER-NO.
                                                                                                                                                 C98970
 60050
 60030
 60050
                                                                                                                                                 C98970
                      MOVE IDENT TO CUR-ID.
 60060
                                                                                                                                                 C98970
                                                                                                                                                 C98970
C989TO
 60070
                       MOVE HMC TO CUR-HMC.
 60080
              SET-NEW-2.
                     -NEW-2.

MOVE MAN-HR TO SUM-MAN-HR.

MOVE UNITS TO SUM-MA.

IF UNITS EQUAL TO ZERO 90 TO SET-FLAS-2.

PERFORM WRITE-4 THRU END-WRITE-4.

READ IN-FILE-D-B INTO DATA-BANK-INPUT AT END 90 TO EOF-BRK-2.
 60090
                                                                                                                                                  C98970
 60100
                                                                                                                                                  C989T0
                                                                                                                                                 C98970
 60102
 60103
                                                                                                                                                  C98970
 60104
                                                                                                                                                 C989T0
                     60 TO BREAK-2.
-FLAG-2.
 60105
                                                                                                                                                 C98970
                                                                                                                                                  C989T0
                      READ 1'-FILE-D-B INTO DATA-BANK-INPUT
AT END GO TO EOF-BRK-2.
60140
                                                                                                                                                  C989T0
                                                                                                                                                 C98970
```

```
PERFORM CHECK-ISCHRONAL THRU END-CI.

IF ISC KRONAL NOT EQUAL TO CUR-ISC GO TO BREAK-2.

IF WUC NOT EQUAL TO CURWUC GO TO BREAK-2.

IF SERIAL-NU NOT EQUAL TO CUR-SER-NO GO TO BREAK-2.

IF IDENI NOT EQUAL TO CUR-ID GO TO BREAK-2.

IF HMC NOT EQUAL TO CUR-HMC GO TO BREAK-2.

ADD MAN-HR TO SUM-MAN-HR.

ADD UNIIS TO SUM-MA.

IF UNITS NOT EQUAL TO ZERO GO TO INT-BREAK-2.

GO TO SET-FLAG-2.
60160
                                                                                                                           C98970
                                                                                                                           C98970
60170
60180
                                                                                                                           COAGTO
60190
60200
                                                                                                                           C98970
                                                                                                                           C98970
60220
60230
                                                                                                                           C98970
60231
                                                                                                                           C98970
60232
           INT-BREAK-2.

PERFORM WRITE-4 THRU END-WRITE-4.

COMPUTI SUM-MAN-HR > 0.

COMPUTE SUM-MA > 0.
60240
                                                                                                                           COAGTO
60250
                                                                                                                           C98970
60260
                                                                                                                           C98970
60262
                                                                                                                           C98970
60264
                  GO TO SET-FLAG-2.
                                                                                                                           C98970
          BREAK-2.
                                                                                                                           C98970
                  COMPUTE SUM-MAN-HR > 0.
60282
                                                                                                                           C98970
                  COMPUTE SUM-MA > 0.
60284
                                                                                                                           C98970
60290
                                                                                                                           C98970
60330
            WRITE-4.
                                                                                                                            C98970
                  MOVE CURWUC TO WUC-OUT.
                                                                                                                           C98970
                  MOVE CURTISE TO ISC-OUT.
MOVE CURTISE TO ISC-OUT.
MOVE CURTISE TO HMC-OUT.
IF SUM-MA EQUAL TO ZERO ADD 1 TO SUM-MA.
DIVIDE SUM-MA INTO SUM-MAN-HR
60350
                                                                                                                           C98970
60370
         MOVE ONE TO DATA-TYPE.

WRITE OUT-REC-1 FROM OUT-DATA.

ADD 1 IV NO-REC-1.

END-WRITE-4. EXIT.
60380
                                                                                                                           C98970
60390
                                                                                                                           C98970
                                                                                                                           C98970
60410
                                                                                                                           C98970
60420
60430
                                                                                                                           C98970
           EOF-BRK-2.

IF SUM-MAN-HR EQUAL TO ZERO GO TO CLOSE-FILES.

PERFORM WRITE-4 THRU END-WRITE-4.
60440
                                                                                                                           C98970
                                                                                                                           C98970
                                                                                                                           C98970
60470
                  GO TO CLOSE-FILES.
                                                                                                                            C98970
           READ-ISC-A-C.

READ IN-FILE-ISC INTO SPEC-WUC AT END GO TO END-RIAC.

READ IN-FILE-ISC INTO NO-ISC AT END GO TO END-RIAC.
70000
                                                                                                                           C98970
70005
70010
                                                                                                                           C98970
                  MOVE ZERO TO KNT.
70020
                                                                                                                           C98970
           RIAC.
70030
                 70040
                                                                                                                           C98970
70050
                                                                                                                           C98970
70060
                                                                                                                           C98970
70070
                                                                                                                           C98970
70075
70076
                                                                                                                           C08970
                                                                                                                           C98970
70085
                  CLOSE IN-FILE-ISC WITH LOCK.
                                                                                                                           C98970
70090
          END-RIAC. FXIT.
CHECK-ISCHRONAL.
                                                                                                                           C98970
70200
                  IF SERIAL-NO IS NOT EQUAL TO PREV-TESTED-SN GO TO CHECK-I-2.

IF ISC-FLAG IS EQUAL TO TWO GO TO END-CI.

IF SCHHONAL IS EQUAL TO ONE AND WEEK IS NOT LESS THAN

MIN-ISC-WEEK, THEN GO TO END-CI.
70210
                                                                                                                          C98970
70220
70230
                                                                                                                           C98970
70232
                                                                                                                           C98970
70240
                  MOVE IND TO ISCHRONAL.

IF WEEK IS LESS THAN MIN-ISC-WEEK GO TO END-CI.

MOVE ZEHO TO CNT.
70250
                                                                                                                            C98970
70260
                                                                                                                           C98970
70270
70280
           CHECK-I-1.
                                                                                                                           C98970
                                                                                                                           C98970
                  MOVE ISC-AC-TH CONTO TO ISC-TEMP,

IF SERIAL-NO IS LESS THAN ISC-TEMP GO TO CHECK-1-4,

IF SERIAL-NO IS EQUAL TO ISC-TEMP GO TO CHECK-1-1A,

IF CNT IS LESS THAN NO-ISC-AC GO TO CHECK-1-1.
70300
                                                                                                                           C98970
70310
                                                                                                                            C98970
                                                                                                                           C98970
70330
70340
           CHECK-I-4.
MOVE TWO TO ISC-FLAG.
                                                                                                                            C98970
70350
                                                                                                                           C98970
           GO TO CHECK-1-3.
70360
70370
                                                                                                                           C98970
                  MOVE ISC-AC-WK CONTO TO WEEK-TEMP,

IF WEEK-TEMP IS EQUAL TO WEEK OR WEEK IS GREATER THAN
WEEK-TEMP MOVE ONE TO ISCHRONAL.
70380
                                                                                                                           C98970
70390
                                                                                                                           C98970
70400
                                                                                                                           C98970
70410
                  MOVE ONE TO ISC-FLAG.
70430
          CHECK-1-3.
                                                                                                                           C98970
70440
                  MOVE SLRIAL-NO TO PREV-TESTED-SN.
                                                                                                                           C98970
           END-CI. EXII.
70450
70510
                                                                                                                           C98970
70520
                  WRITE GUT-REC-2 FROM NINE.
ADD 1 TO KNT.
IF KNT IS LESS THAN 90 GO TO NINE-FILL-2.
                                                                                                                           C98970
                                                                                                                           C98970
70530
70540
                                                                                                                           COAGTO
          N-F-2. EXIT.
NINE-FILL-:.
70550
                                                                                                                           C98970
70600
                                                                                                                            C98970
                  WRITE OUT-REC-I FROM NINE.
 70610
                                                                                                                           C98970
          ADD 1 TO KNT.

IF KNT 15 LESS THAN 90 GO TO NINE-FILL-1.

N-F-1. EXI'.
70620
70630
                                                                                                                            C98970
70640
```

```
71800 CLOSE-FILES.
71810 COMPUTE KNT > NO-REC-1 - NO-REC-1 / 96 * 90.
71820 1F KNT 1S ZERO GO TO CF-2.
71830 PERFORM NINE-FILL-1 THRU N-F-1.
                                                                                                                                      C98970
                                                                                                                                       C98970
                                                                                                                                       C98970
                                                                                                                                       C98970
            CF-2. COMPUTE KNT > NO-REC-2 - NO-REC-2 / 90 4 90.

1F KNT 1S ZERO 60 TO CF-3.

PERFORM NINL-FILL-2 THRU N-F-2.
71840
71850
                                                                                                                                       C98970
71860
71870
                                                                                                                                       C98970
C98970
            CF-3.
71900
71910
                   DISPLAY I NUMBER RECORDS-1 I NO-REC-1 UPON CONSOLE.
DISPLAY I NUMBER RECORDS-2 I NO-REC-2 UPON CONSOLE.
DISPLAY I END OF JOB C98971 UPON CONSOLE.
CLOSE IN-FILE-D-R. MSG-FILE. OUT-FILE-1:
OUT-FILE-2 WITH LOCK.
                                                                                                                                       C98970
71920
                                                                                                                                       C98970
C98970
71940
71950
                                                                                                                                       C98970
71960
71990
                                                                                                                                       C98970
                    GORACK.
/+ PLACE COHOL SOURCE BEFORE THIS CARD
//CHG.TFGIN DD +.SPACE>[CYL,[1:13]
00000 GET TFG
                                                                                                                                   1440 CDS
C98970'T
                                                                                             WANG
010001 019999 REPLACE
TFG DI01 11 0202080
  0330003310033200333003400036000310003200032100204
     34
37000236 331
57000237 331
57000243 324
      57000244
                       331
     57002545
                       331
324
     58000776
      58000901
                       331
331
     59000002
      59000003
     59000005
                       331
     59000006
                       331
     59000010
                       331
331
     59000012
     59000015
     59000018
                       331
                       331
331
                       331
324
324
     59000030
     59000054
     59000057
                       324
     5900U058
     59000059
     59000104
                       331
                       331
     69u00105
                       324
324
      59000108
     59000110
     59004119
                       324
                       324
     b9###141
     Fulnanh
     69000144
     59000145
59000147
                       324
324
     59000151 324
59000152 324
  .END
                  PLACE TFG DATA BEFORE THIS CARD

DU DISPOSOLO-KEEP J-VOL>SER>+F3.UNIT>T+F3

DU DISPOSOLO-KEEP J-VOL>SER>+F3.UNIT>T+F3

DU DISPOSOLO-KEEP J-VOL>SER>+F7.UNIT>T+F7

RIN DD +:SPACE>ETRK.[1:13]
 /* PL
                                                                                                                                    T14
T22
T24
 //TPR.TU22
//TPR.TU24
//TPR.TPR1N
 T/P DT01
T/P DT02
T/P TU14
                         10100802080
                         1010080Z080
1010070Z070
 T/P
          TU22
                          10100202020
                  PLACE T/P CONTROL CARDS SEFORE THIS CARD
```

6.15.3 SORT UNSCHEDULED NORM HOUR

```
01: G WANG :.PRTY>02:TYPRUN>HOLD P9622N,W>060:TIME>04:ACCT>D35323007
//19897W JOB
//C9897F EXEC
                        DISPOC . KEEP J. UNIT >C A+F5+2+DEFER J.
//CHG.SORTIN
                   QQ
                                                                                          CT22/23 1
                   DS->+E .9897432+
                                                                                          CT22
11
                  //CHG.SORTOUT
                                                                                          CT12/13 1
        SYSIN DU .,DCB>8LKSIZE>0080.SPACE>ETRK,C1,111
FIELDS>L017.001.CH.A.019.001.CH.A.001.005.CH.A].SIZE>E0350000
//CHG.SYSIN
 SORT
 SORT FIELDS>(017-001-CH-A-019-001-CH-A-001-005-CH-A)
MODS E15>(E15-000-SORTLIB-N]-E18>(E18-024-SORTLIB-N)
```

6.15.4 MEAN AND VARIANCE NORM HOUR

```
//C9897C EXEC P9655L.TIME>30.ACCT>D35323007
//CHG.TU12 DU DISP>C.PASS J.UNIT>CT+F1.1.DEFER J.DSN>+A.9897430.
// VOL:SERSC+F1.4+F1.8+F1.C+F1.D+F1.E+F1.6+F1.6+F1.8+F1.S+F1.
//CHG.TU25 DU DISP>C.PASS J.UNIT>CT+F8.1.DEFER J.DSN>+A.9897430.
//CHG.TU25 VOL:SERSC+F8.L+F8.L+F1.N+F1.D+F1.P+F1.9+F1.9+F1.S+F1.
// VOL:SERSC+F8.A+F8.B+F8.C+F8.D+F8.E+F8.F+F8.69F8.H+F8.
                                                                                                                 CT12
                                                                                                                 CT12
                                                                                                                CT25
                                                                                                                 CT25
        INPUT DU *SPACEXCYL*(1:13)
COMBINE COMPILE 6. WANG.
DATE-WRITTL * 25 JLY 72*
//CHG. INPUT
                                                                                                                   1440 COS
00000
                                                                                                                     C98970
01040
          REMARKS.
TASK7-28
                                                                                                                      C98970
01050
                                                                                                                      C98970
01060
                                      MEAN. VARIANCE OF NORM/MA.
                                                                                                                      C98970
          ENVIRONMENT DIVISION,
CONFIGURATI IN SECTION,
SOURCE-COMPUTER, 18M-360,
OBJECT-COMPUTER, 18M-360,
02000
                                                                                                                      C98970
                                                                                                                      C98970
02020
                                                                                                                      C98970
02030
                                                                                                                      C98970
          INPUT-OUTPU: SECTION. FILE-CONTRO ..
02100
                                                                                                                      C98970
                                                                                                                      C98970
02110
                                                                                                                      C98970
02120
                 SELLCT IN-FILE
                                                                ASSIGN TO UT-S-TU12
                 RESURVE 1 ALTERNATE AREA. SELECT HIST-FILE
02130
                                                                                                                      C98970
                                                                 ASSIGN TO UT-S-TU25
02140
                                                                                                                      C98970
                       RESERVE 1 ALTERNATE AREA.
02150
                                                                                                                      C98970
          DATA DIVISION.
10000
                                                                                                                      C98970
           FILE SECTION.
                                                                                                                      C98970
10010
                 IN-FILE
                                                                                                                      C98970
11100
                 RECORDING MODE IS F
BLOCK CUNTAINS 90 RECORDS
11120
                                                                                                                      C98970
11130
                                                                                                                      C98970
11140
                 RECORD CONTAINS 20 LABEL RECORDS ARE OMITTED
                                                                CHARACTERS
                                                                                                                      C98970
11150
                                                                                                                      C98970
                 DATA RECORDS ARE IN-REC.
11160
                                                                                                                      C98970
11170
          01
                 IN-HEC SYNC.
                                                                                                                      C98970
                                                              PICTURE XC5].
PICTURE XC4].
PICTURE S9C6].
PICTURE S9999999.
                 02 WUC
02 FILLER
11180
                                                                                                                      C98970
                                                                                                                      C98970
11182
11163
                 02
                       085
                                                                                                                      C98970
                       OBS-1 REDEFINES OBS
                                                                                                                      C98970
11184
11185
                        FILLER
                                                              PICTURE X.
11186
                 02
                       ISCHRONAL-NEW
                                                              PICTURE X.
                                                                                                                      C98970
                 02
                                                              PICTURE X.
                                                                                                                      C98970
                 02 DATA-TYPE-NEW
02 FILLER
HIST-FILE
RECORUTION MODE IS F
BLOCK CONTAINS 60 RECORDS
11188
                                                              PICTURE X
                                                                                                                      C98970
                                                              PICTURE X.
                                                                                                                      C98970
11189
                                                                                                                      C98970
12100
12120
                                                                                                                      C98970
12130
                                                                                                                      C98970
                 RECORD CONTAINS 50
12140
                                                                CHARACTERS
                                                                                                                      C98970
                 LABEL HECORDS ARE OMITTED DATA RECORDS ARE HIST-REC.
12150
12160
                                                                                                                      C98970
                                                                                                                      C98970
                 HIST-REC SYNC.
12170
           01
                                                                                                                      C98970
           02 FILLER' WORKING-STORAGE SECTION.
12180
                                                              PICTURE XC501.
                                                                                                                      C98970
30000
                                                                                                                      C98970
                 CING-STURRED SECTION.

KNT SYNC PICTURE S9(5),

08S-ISO SYNC PICTURE S9(5)V99999,

08S-NI SYNC PICTURE S9(5)V99999,

FILLER SYNC,

02 FREG-HIST-VALUE OCCURS 2000 TIMES PICTURE S9(5)

COMPUTATIONAL.
 30010
                                                                                                                      C98970
30012
30014
                                                                                                                      C98970
 30020
                                                                                                                      C98970
30030
                                                                                                                      C98978
C98970
30040
                  A PICTURE SYEST COMPUTATIONAL.
30050
           01
                 NO-UF-HISTS
ONE SYNC P
                                                             PICTURE 99999 VALUE ZERO.
PICTURE X VALUE 11:
                                                 SYNC
30060
                                                                                                                      C98970
30080
30081
           01
                                                           VALUE 121.
VALUE 131.
VALUE 141.
VALUE 151.
PICTURE 59053 COMPUTATIONAL.
                                          PICTURE X
           01
                                                                                                                      C98970
                                           PICTURE X
300H2
           01
                  THREE
                              SYNC
                                                                                                                      C94970
                 FOUR
30483
                              SYNC
                                                                                                                      C98970
           01
                 FIVE SYNC
CNT SYNC
CUR-WUC-T SYNC.
30044
30040
           01
01
                                                                                                                      C98970
C98970
 30100
                 02 FILLER
02 CUH- WUC
                                                              PICTURE XC5] VALUE I WUC>1, PICTURE XC5].
30110
                                                                                                                      C98970
30120
                                                                                                                      C98970
```

```
30170 01 ISCHRUNAL SYNC
30180 01 DATA-TYPE SYN
50190 01 MINUS-ONE COMPL
                                                         PICTURE X.
                                                                                                             COASTO
                DATA-TYPE SYNC
MINUS-ONE COMPUTATIONAL
                                                         PICTURE X.
PICTURE S999 VALUE -1 SYNC:
                                                                                                             C98970
                                                                                                             C98970
                REPORT-ID SYNC.
          01
                                                                                                             C98970
                                                         PICTURE XESOS VALUE
32010
                n2 FILLER
                            159897860 TF7919-01 142-8 1 1/2

ER PICTURE X(50) VALUE SPACE.

ER PICTURE X(30) VALUE
                                                                                                             C98970
 32020
                02 FILLER
02 FILLER
32030
                                                                                                             C98970
C98970
                                                                                                             C98470
                                                                                                             C98970
                                                                                                              C98970
         VALUE ZERO.
46325
                                                                                                              C98970
                                                                                                              C98970
                                                    SYNC PICTURE S9[5]V99999
         VALUE ZERO.
01 MEAN-VAKIANCE-LINE-B
                                                                                                              C98970
 46335
                                                   SYNC.
                                                                                                              C98970
 46400
                02 FILLER
                                        PICTURE XC503 VALUE
                                                                                                              C98970
 46410
                                                                                                              COASTO
 46420
                                     PICTURE XC163 VALUE
                02 FILLER
                                                                                                              C98970
 46430
                                             MEAN):.
PICTURE ZZ9.99999.
PICTURE X[28] VALUE
                                                                                                              C98970
 46440
 46450
                 02 MEAN-RPT-B
                                                                                                              COAGTO
                02 FILLER
                                                                                                              C98970
 46460
                02 VARIANCE-RPT-B PICTURE ZZZZ9.99999.
02 FILLER PICTURE XC163 VALUE
                                                                                                              C98970
 46470
 46480
                                                                                                              C98970
                                                                                                              C98970
 46490
                OZ FILLER PICTUME X(16) VALUE

HIST-VALUE-MAX SYNC
HIST-VALUE-MIN SYNC
HIST-NO-0F-0BS SYNC
HIST-NO-0F-INTERVALS SYNC
HIST-NP-UT-VMAX-VMIN SYNC
PICTURE S9999V99 VALUE <9999.9.
PICTURE S9(5) VALUE ZERO.
PICTURE 999V99 VALUE 50.
PICTURE 999V99 VALUE 2ERO.
PICTURE 999V99 VALUE 2ERO.
 46500
                                                                                                              COROTA
 47000
                                                                                                              C98970
 47010
          01
                                                                                                              C98970
 47015
 47020
           01
                                                                                                              COASTO
                                                                                                              C98970
 47030
          01
                                                                              VALUE ZERO.
VALUE :1:.
 47040
          01
                                                                                                              C98970
                HIST-INPUT-VENCE PICTURE X VALUE ZERO.
 47050
                                                                                                              C98970
                                                                                                              C98970
 47060
 47070
                                                                                                              C98970
 47080
           01
                                                          PICTURE S999 VALUE ZERO.
PICTURE S9999999 VALUE ZERO.
PICTURE S999999 VALUE ZERO
 471190
                                                                                                              CORSTO
 47100
                 HIST-TEMP SYNC
                                                                                                              C98970
           01 HIST-INTERVAL-SIZE SYNC
 47110
                COMPUTATIONAL.
HIST-FLAG SYNC
 47120
                                                                                                              C98970
                                                          PICTURE X
                                                                                VALUE :01.
                                                                                                              C98970
                HIST-SCALE-VALUE SYNC COMPUTATIONAL
HIST-PERCENT SYNC
HIST-CUM SYNC
PICTURE S999V99 COMPUTATIONAL.
PICTURE S999V99 COMPUTATIONAL.
 47160
           01
                                                                                                              C98970
 47170
                                                                                                              C98970
          01
 47180
 47190
           01
                HIST-CUM SYNC
HIST-LINE SYNC COMPUTATIONAL
                                                                                                              C98970
 47200
           01
                                                                                                              C98970
                                                         PICTURE S999 VALUE ZERO.
PICTURE S999 VALUE 475.
PICTURE S999.
PICTURE XC103 VALUE
 47210
47220
                                                                                                              C98970
                 HIST-PAGE-FLAG SYNC
                                                                                                              C98970
                HIST-ENH-1 SYNC PICT
HIST-ENH-1 SYNC PICT
FIRTHER NO 01.
 47230
          01
                                                                                                              C98970
 47300
47310
                                                                                                              C98970
                                                                                                              C98970
           01
                 HIST-ERK-3 SYNC.
                                                          PICTURE XC53 VALUE 185 > 1.
PICTURE S9C53 VALUE ZERO.
PICTURE XC103 VALUE
 47530
                 02 FILLER
02 HIST-ERR-2
                                                                                                              C98970
                                                                                                              C98970
 47350
           01
                HIST-ERK-4 SYNC
                                                                                                              C98970
                 HIST-ENR-5 SYNC PIC
 47360
                                                                                                              C98970
 47570
                                                         PICTURE XE 103 VALUE
           01
          1-MIN BAD. 1.
01 HIST-OUT-RANGE-VALUE SYNC PICTURE S999 COMPUTATIONAL.
 47380
                                                                                                              CORGIN
 47390
                                                                                                              C98970
                                                                                                              C98970
 47500
                 FILLER SYNC.
 47510
                 02 FILLER OCCURS 200 TIMES.
                                                                                                              C98970
                      03 HIST-TABLE
03 HIST-UPPER-LIMIT
03 HIST-TABLE-SCALED
                                                          PICTURE S9[5] COMPUTATIONAL.
PICTURE S999999 COMPUTATIONAL.
PICTURE S999999 COMPUTATIONAL.
 47530
 47540
                                                                                                              C98970
                                                                                                              C98970
 47550
 47560
                 HIST-NEW-PAGE SYNC.
                 02 FILLER
02 FILLER
                                                          PICTURE X VALUE :1:.
PICTURE X[122] VALUE SPACE.
 47570
                                                                                                              C98970
                                                                                                              C98970
 47580
                                                                                                              C98970
 47582
                      FILLER
                                                           PICTURE XES3 VALUE :PAGE 1.
                      H151-PAGE-NO
                                                          PICTURE 9.
                                                                                                              C98970
 47584
                 02
                 02 FILLER
02 FILLER
02 FILLER
02 HIST-TITLE-1.
03 FILLER
                                                                                                              C98970
 47590
                                                                             VALUE 141.
 47600
          01
                                                                                                              C98970
                                                          PICTURE XE33 VALUE IS 1.
 47610
 47620
                                                                                                               C98970
                                                                                                              C98970
                                                          PICTURE XCIOJ VALUE SPACE.
 47630
                      HIST-TITLE-2.
03 FILLER
HIST-TITLE-3
                                                                                                               098970
                 02
                                                          PICTURE XC103 VALUE SPACE.
PICTURE XC103 VALUE SPACE.
PICTURE XC103 VALUE SPACE.
PICTURE XC243 VALUE
                03 FILE
02 HIST-TITLE-3
02 HIST-TITLE-4
02 FILLER PICTURE XL...
1 NO OF OBSERVATIONS >:.
1 NO OF OBSERVATIONS >:.
PICTURE XL...
PICTURE XL...
PICTURE XL...
PICTURE XL...
 47631
                                                                                                              C98970
 47650
                                                                                                              C98970
                                                                                                              C98970
 47660
 47670
                                                                                                               C98970
 47680
                                                                                                              C98970
                                                                                                              C98970
 47690
                UZ FILLER

1 VALUE MAX > 1.

1 VALUE MAX > 1.

1 VALUE MAX > 1.

1 VALUE MIN > 1.
                                                                                                               C98970
                                                          PICTURE ----. 9.
PICTURE X[13] VALUE
 47710
                                                                                                              C98970
 47720
 47730
                                                                                                               COASTO
                                                          PICTURE ----9.
PICTURE XE183 VALUE
                                                                                                              C98970
 a7780
                       FILLER
 47750
                                                                                                               C98970
```

```
47900 01 HIST-UOT-LINE SYNC.
                                                                                                                 C98970
                02 FILLER
47910
                                                           PICTURE X[50] VALUE
                                                                                                                  C98970
47920
                                                                                                                 C9A970
47922
                                                                                                                 C98970
                 U2 FILLER
                                                           PICTURE XEBOJ VALUE
47930
                                                                                                                 C98970
47940
                                                                                                                 C98970
47950
                 HIST-LABEL SYNC.
                                                                                                                  C98970
          01
                                                           PICTURE XCS03 VALUE
CUM FREG 1...5...10...15...20.1.
PICTURE XC803 VALUE
1...
47960
                02 FILLER
                                                                                                                 C98970
47970
                                       MIDPHT PONT
                                                                                                                 C98970
47974
                 02 FILLER
                                                                                                                 C98970
                479AU
                                                                                                                 C98970
47990
                                                                                                                 C98970
                MIST-LINE-OUT SYNC.

02 FILLER

02 HIST-LINE-RPT

02 FILLER

02 HIST-AID-POINT-RPT
                                                                                                                 C98970
48000
          01
                                                           PICTURE X VALUE 1/1.
4AUIO
                                                           PICTURE ZZ9.
PICTURE X VALUE SPACE.
PICTURE ----9.
48020
                                                                                                                 C98970
48030
                                                                                                                 C98970
48040
                                                                                                                 C98970
                                                           PICTURE ZZ9.9.
PICTURE X VALUE SPACE.
PICTURE ZZ9.9.
                 02
                      HISI-PERCENT-RPT
48060
                                                                                                                  C98970
                      FILLER
HIST-CUM-RPT
48070
                 02
                                                                                                                 C98970
48080
                 02
                                                                                                                 C98970
48100
                 02
                       HIST-FREQ-RPT
                                                            PICTURE ZZZZ9.
                                                                                                                 C98970
                                                           PICTURE X VALUE SPACE.
4HIIU
                 U2
                      FILLIR
                                                                                                                 C98970
                02 HIST-POINT OCCURS 100 TIMES
48120
                                                                                                                 C98970
                                                           PICTURE X.
PICTURE X VALUE 1#1.
48130
                                                                                                                 C98970
48140
48150
                02 FILLER
HIS:-OUT-RANGE-REC SYNC.
                                                                                                                 C98970
                                                                                                                 C98970
          01
                102 FILLER PICTURE X(35] VALUE
1/ NUMBER OF OUT OF RANGE VALUES >1.
1/ NUMBER OF OUT OF RANGE VALUES >1.
1/ NUMBER OF OUT OF RANGE VALUES >1.
1/ PICTURE X(91) VALUE SPACE.
1/ PICTURE X VALUE 121.
                02 FILLER
                                                                                                                  C98970
48160
48170
                                                                                                                  C98970
48180
                                                                                                                  C98970
                02 FILLER
02 FILLER
HIST-SCALE-LINE SYNC.
48190
48191
                                                                                                                 C98970
C98970
                                                                                                                  C98970
48200
          01
                                            PICTURE X[27] VALUE SCALING FACTOR > 1.
                02 FILLER
4A210
                                                                                                                 COASTO
48220
                                                                                                                  C98970
                                                           PICTURE ZZ9.
PICTURE X[099] VALUE SPACE.
                02 HIST-SCALE-RPT
02 FILLER
02 FILLER
48230
                                                                                                                  C98970
                                                                                                                 C98970
44240
48250
                                                            PICTURE X VALUE 141.
                FILLER SYNC.
02 HIST-VALUE OCCURS 2000 TIMES
48300
48310
          01
                                                                                                                  C98970
                                                                                                                  C98970
                                                           PICTURE S9999V9 COMPUTATIONAL.
48320
                                                                                                                  C98970
                TASKT-HEC SYNC.
                                                                                                                  C98970
48400
          10
                05 TASK7-150
05 FILLER
05 TASK7-1D
48410
                                               PICTURE X
                                                                                                                  C98970
                                               PICTURE XC93.
48411
                                                                                                                  C98970
                                                                      VALUE 131.
                                                                                                                  C98970
48420
48440
                      FILLER
TASKT-WUC
                                               PICTURE XE13.
                                                                                                                 C98970
                 05
                                               PICTURE XLSJ.
PICTURE XLSJ.
PICTURE S9(73V9.
PICTURE X.
PICTURE S9(73V9.
PICTURE XL103.
                     FILLER
                                                                                                                  C98970
48450
                 05
                      MEAN-RPT
48460
                                                                                                                  C98970
                 05
                       FILLER
                 05
                       VARIANCE-RPT
48480
                 05
                                                                                                                  C98970
                                                                                                                  C98970
48490
          O5 FILLER PICTURE X VALUE IS
PROCEDURE DIVISION.
OPEN 1/19/17 IN-FILE.
OPEN QUTPUT HIST-FILE.
MOVE 2000 TO KNT.
PERFORM RESET-TABLE THRU END-RST-TABLE.
READ IN-FILE. AT END GO TO CLOSE-FILES.
                 05
                                                                VALUE I#1.
48500
                                                                                                                  C98970
                                                                                                                  C98970
50000
50010
                                                                                                                  C98970
                                                                                                                  C98970
50020
                                                                                                                  C98970
50030
50040
                                                                                                                  C98970
                                                                                                                  C98970
50050
50100
                                                                                                                  C98970
50110
                MOVE I TO HIST-NO-OF-OBS.
                                                                                                                  C98970
                MOVE I TO HIST-NO-OF-OBS.

MOVE WUC TO CUR-WUC.

MOVE UATA-TYPE-NEW TO DATA-TYPE.

MOVE ISC. RONAL-NEW TO ISCHRONAL.

IF DATA-TYPE IS EQUAL TO FIVE GO TO WEEKS-DATA ELSE GO TO
50120
                                                                                                                  C98970
50140
                                                                                                                  C98970
50150
                                                                                                                  C98970
50160
                                                                                                                  C98970
50170
                                FLT-DATA.
                                                                                                                  C98970
50200
                                                                                                                  C98970
                THEAU IN-TILL, AT END 80 TO CLOSE-FILES.

IF WATA-TYPE-NEW IS EQUAL TO 19: 80 TO CLOSE-FILES.

IF WUU IS NOT EQUAL TO CUR-WUC 60 TO PARA-2.

ADD I TO HIST-NO-OF-OBS.

IF WATA-TYPE IS EQUAL TO FIVE 80 TO WEEKS-DATA ELSE 80 TO
50210
                                                                                                                  C98970
50220
                                                                                                                  C98970
50230
                                                                                                                  C98970
50250
                                                                                                                  COASTO
                                                                                                                  C98970
50260
                                            FLT-DATA.
50270
                                                                                                                  C98970
50300
                                                                                                                  C98970
                PERFORM SET-HISTOG THRU END-SH.
PEPFORM RESET-TABLE THRU END-RST-TABLE.
50310
                                                                                                                  C98970
50320
                                                                                                                  C98970
                 GO TO PARA-I.
50330
                                                                                                                  C98970
50400
          RESET-TABLE.
50410
                MOVE ZENO TO CHT.
                                                                                                                  C98970
50420
                                                                                                                  C98970
50430
                 ADD I TO CHT.
                MOVE MINUS-ONE TO HIST-VALUE [CNT].
MOVE ZEHO TO FREG-HIST-VALUE [CNT].
IF LNT IS LESS THAN KNT GO TO RST.
MOVE ZEHO TO KNT.
                                                                                                                  C98970
50445
50450
                                                                                                                  C98970
                                                                                                                  C98970
50460
          ENU-RST-TABLE. EXIT.
                                                                                                                  C98970
```

```
50510 SET-HISTOG.
50590 PLRFORM WRITE-HISTOGRAM THRU END-HIST.
50600 IF HIST-FLAG IS EQUAL TO 118 THEN GO TO CF1.
50610 ADD I TO NO-OF-HISTS.
                                                                                                             C98970
                                                                                                             C98970
                                                                                                              C98970
                                                                                                             C98970
          ENU-SH. EXII.
50020
51000
          WEEKS-DATA.
                                                                                                             COROTO
                MOVE ZEND TO CHT.
 51010
                                                                                                             C98970
 51020
           WEEK-A.
                                                                                                             C98970
                ADD 1 TO CNT.

IF ORS 15 EQUAL TO HIST-VALUE [CNT] 80 TO WEEK-C.

IF FREW-HIST-VALUE [CNT] 15 EQUAL TO ZERO 80 TO WEEK-B.

IF CNT 15 LESS THAN 2000 80 TO WEEK-A.

DISPLAY: MURE THAN 2000 FREQUENCY OCCURENCES: UPON CONSOLE.
51030
                                                                                                             C98970
51040
 51050
                                                                                                             C98970
51060
                                                                                                             C98970
 51070
51080
                 GO TO CHI.
                                                                                                             C98970
          WEEK-B.
51090
                                                                                                             C98970
                C-B.
MOVE UNS TO MIST-VALUE [CNT].
IF (NT IS GREATER THAN KNT THEN MOVE CNT TO KNT.
                                                                                                             C98970
51710
                                                                                                             C98970
                                                                                                             C98970
51120
          WEEK-C.
          ADD I TO FREG-HIST-VALUE CONTJ.
GO TO READI.
FLI-DATA.
 51130
                                                                                                              C98970
51140
52000
                                                                                                             C98970
 52010
                MOVE ZERO TO CHT.
                                                                                                             C98970
                                                                                                             C98970
 52020
          FLI-A.
                ADD 1 TO CNT.

IF UBS-1 IS EQUAL TO HIST-VALUE [CNT] 00 TO FLT-C.

IF HREW-WIST-VALUE [CNT] 15 EQUAL TO ZERO GO TO FLT-B.

IF UNT 15 LESS THAN 2000 GO TO FLT-A.

DISPLAY ! HURE THAN 2000 FREQUENCY OCCURENCES ! UPON CONSOLE.
 52030
                                                                                                              C98970
                                                                                                             C98970
 52040
 52050
                                                                                                             C98970
                                                                                                             C98970
 52060
 52070
 52080
                 GO 10 C+1.
                                                                                                             C98970
          FLT-B.
 52090
                MOVE OBS-1 TO HIST-VALUE [CNT].
                                                                                                             C98970
                 IF UNT IS GREATER THAN KNT THEN MOVE CHT TO KNT.
                                                                                                             C98970
52110
 52120
                                                                                                             C98970
 52130
                ADD 1 TO FREO-HIST-VALUE CONT3.
GO 10 HEADI.
 52140
                                                                                                             COROZO
          CLOSE-FILES.

PERFORM SET-HISTOG THRU END-SH.
 52200
                                                                                                             C98970
 52205
                                                                                                             C98970
 52207
                                                                                                             C98970
 52210
                 CLOSE IN-FILE. HIST-FILE.
                                                                                                             C98970
                 IF HIST-FLAG IS EQUAL TO 11: DISPLAY : HIST ERROR : UPON
                                                                                                             C98970
 52211
                CONSOLE.
DISPLAY: NO OF HISTOGRAMS > 1 NO-OF-HISTS UPON CONSOLE.
DISPLAY: EOJ C9897: UPON CONSOLE.
 52212
                                                                                                             C98970
 52215
 52220
                                                                                                             C08970
 52230
                                                                                                             C98970
          COMPUTE-MEAN--VARIANCE.

IF HIST-MO-OF-OBS EQUAL TO 1 60 TO CMY-3.

MOVE ZERO TO CNT.

MOVE ZERO TO MEAN.
 95000
                                                                                                             C98970
 95005
                                                                                                             C98970
 95010
 95020
                                                                                                             COROTO
 95030
                                                                                                             C98970
                ADD 1 TC CNT.
COMPUTE TEMP-COMP > HIST-VALUE [CNT] + FREG-HIST-VALUE [CNT].
95040
                                                                                                             C98970
                ADD TEMP-COMP TO MEAN.

IF CHT IS LESS THAN KHT GO TO CMY-1.
DIVICE HIST-NO-OF-OBS INTO MEAN.
 95060
                                                                                                             C98970
 951170
 95080
                                                                                                             C98970
                MOVE ZERO TO CATIANCE.
                                                                                                             C98970
 95100
                                                                                                             C98970
 95110
          CMV-2.
                                                                                                             C98970
                ADD I TO CNT.

COMPUTE TEMP-COMP > [[HIST-VALUE [CNT] = MEAN] ++ 2] +
 95120
                                                                                                             C98970
                                                                                                             C98970
 95130
 95140
                                                         FREO-HIST-VALUE [CHT].
                                                                                                             C98970
                ADD TEMP-COMP TO VARIANCE.

IF CNT 1S LESS THAN KNT GO TO CMV-2.

COMPUTE VARIANCE > VARIANCE / CHIST-NO-OF-OUS - 13.
 95150
95160
                                                                                                             C98970
 95170
                                                                                                             C98970
                MOVE MEAN TO MEAN-RPT.
HOVE VARIANCE TO VARIANCE-RPT.
 95180
 45190
                                                                                                             C98970
                 GO TO CMV-4.
 95191
                                                                                                             C98970
 95192
          CMV-3
                                                                                                             C98970
                MOVE ZERO TO VARIANCE-RPT.
HOVE HIST-VALUE [1] TO MEAN-RPT.
 95193
                                                                                                             C98970
 95194
                       EXIT.
95195
                                                                                                              98970
          END-CHV.
                                                                                                             C98970
 971100
          WRITE-HISTOGRAM.
 97351
                                                             PERFORM COMPUTE-MEAN-VARIANCE
                                                                                                             C98970
                THRU END-CMV.
MOVE CUM-WUC TO TASK7-WUC.
MOVE ISCHRONAL TO TASK7-ISO.
WRITE HIST-REC FROM TASK7-REC.
 97352
                                                                                                             C98970
97356
                                                                                                             C98970
 97358
                                                                                                             C98970
97360
        99990
                                                                                                             C48970
 //CHS. TFGIN
                                                                                                          1440 CDS
/* PL
//TPR.TU12
//TPR.TU25
                                                                                                          T12
 //TPR.TPRIN
      TU12 10100202020
             10100502050
PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

I.PRTY>GE.TYPRUN>HOLD

//T9897N JOB 01:: 6 WANS

6.15.5 SORT UNSCHEDULED MANHOUR

6.15.6 MEAN AND VARIANCE OF UNSCHEDULED MANHOUR

```
1 2
                                                                                                                                                                                                      CT12
                                                                                                                                                                                                      T12
                  T25
                                                                                                                                                                                                           1440 CDS
 //CHG.INPUT
  00000
                                                                                                                                                                                                                C98970
                                                                                                                                                                                                                C98970
 U1U40
                   REMARKS.
TASK 7-2C MEAN VARIANCE OF MANHOURS/MA.
ENVIRONMENT DIVISION.
                                                                                                                                                                                                                C98970
 01 050
 01060
                                                                                                                                                                                                                 C98970
                    CONFIGURATION SECTION.
SOURCE-COMPUTER. IBM-360.
OBJECT-COMPUTER. IBM-360.
                                                                                                                                                                                                                C98970
 02010
                                                                                                                                                                                                                 C98970
 02420
                                                                                                                                                                                                                 C98970
 02030
                   INPUT-OUTPUT SECTION.
                                                                                                                                                                                                                 C98970
  02100
                                                                                                                                                                                                                 C98970
 02110
                               SELECT IN-FILE

RESERVE I ALTERNATE AREA.

SELLCT HIST-FILE
                                                                                                                   ASSIGN TO UT-S-TU12
                                                                                                                                                                                                                 C98970
                                                                                                                                                                                                                 C98970
 02130
02140
                                                                                                                   ASSIGN TO UT-S-TU25
                                                                                                                                                                                                                 C98970
C98970
                   RESURVE 1 ALTERNATE AREA.
DATA DIVISION.
  02150
                                                                                                                                                                                                                 C98970
 10000
                    FILL SECTION.
                                                                                                                                                                                                                C98970
C98970
 10010
                   FILE SECTIONS
FU IN-FILE
RECURDING MODE IS F
BLOCK CONTAINS 90 RECORDS
RECURD CONTAINS 20
LABEL RECORDS ARE OMITTED
DATA RECORDS ARE IN-REC.
  11100
                                                                                                                                                                                                                 C98970
 11120
                                                                                                                                                                                                                 C98970
  11130
                                                                                                                 CHARACTERS
                                                                                                                                                                                                                 C98970
  11140
  11150
                                                                                                                                                                                                                 C98970
                                                                                                                                                                                                                 C98970
  11160
                                                                                                                                                                                                                 C98970
C98970
                               IN-REC SYNC.
  11170
                    01
                                                                                                              PICTURE XC3J.
PICTURE XC3J.
PICTURE XC3,
PICTURE S9(6),
PICTURE S9999999.
PICTURE X.
                                02 WUC
02 HML
02 FILLER
  11180
                                                                                                                                                                                                                 C98970
 11181
                                                                                                                                                                                                                 C98970
C98970
                                          OBS-1 REDEFINES OBS
  11183
                                02
                                                                                                                                                                                                                  C98970
 11184
                                02
                                           FILLER
                                                                                                                                                                                                                  C98970
                                          ISCHRONAL-NEW
FILLER
DATA-TYPE-NEW
FILLER
                                                                                                                                                                                                                 C98970
                                                                                                              PICTURE X.
  11186
                                02
                                                                                                                                                                                                                  C98970
                                                                                                               PICTURE X.
 11187
                                02
                                                                                                                                                                                                                  C98970
                                                                                                               PICTURE X
                                                                                                               PICTURE X.
                                                                                                                                                                                                                  C98970
  11183
                                 Λ2
                               HIST-FILE
RECORDING MODE IS F
                                                                                                                                                                                                                 C98970
C98970
                    FU
  12100
  12120
  12130
                                 BLOCK CONTAINS 60 RECORDS
                                                                                                                                                                                                                  C98970
                     RECORD CONTAINS 50
LABLE RECORDS ARE OMITTED
DATA NECORDS ARE HIST-REC.
01 HIST-REC SYNC.
   12140
                                                                                                                  CHARACTERS
                                                                                                                                                                                                                  C98970
   12150
                                                                                                                                                                                                                  C98970
   12160
                                                                                                                                                                                                                  C98970
   12170
                                                                                                                                                                                                                  C98970
                     OZ FILLER
WORKING-STO. AGE SECTION.
77 KNT SYNC PICTURE S905).
   12180
                                                                                                               PICTURE XC503.
                                                                                                                                                                                                                  C98970
   30000
                                                                                                                                                                                                                  C98970
   30010
                                                                                                                                                                                                                  C98970
  30020
                                FILLER SYNC. 02 FHE -- HIST-VALUE OCCURS 1000 TIMES PICTURE S9(5)
                                                                                                                                                                                                                  C98970
                                COMPUTATIONAL.
A PICTURE SYES COMPUTATIONAL.
   30140
                                                                                                                                                                                                                  C98970
   30050
                                                                                                                                                                                                                  C98970
C98970
                     01
                                                                                                             PICTURE 9999 VALUE ZERO.
PICTURE X VALUE 111.
PICTURE X VALUE 121.
PICTURE 59(5) COMPUTATIONAL.
   30060
                     01
                                NO-OF-HISTS
                                                                                          SYNC
                               ONE SYNTHON SYNCONT SYNCOUR-WUC-T SYNCOUR-WU
   30080
                     01
                                                                     SYNC
                                                                                                                                                                                                                  C98970
                                                                                                                                                                                                                  C98970
   30082
                                                                     SYNC
                                                                                                                                                                                                                  C98970
  30100
                     01
                                                                                                                                                                                                                  C98970
   30110
                                                                                                              P'CIURE XES] VALUE : WUC>I.
PICTURE XES].
                                                                                                                                                                                                                  C98970
                                 02 CUH-WUC
                                                                                                                                                                                                                  C98970
```

```
30130 01 CUR-HMC-T SYNC. 30140 02 FILLER 30150 02 CUR-HMC 30160 02 FILLER
                                                                                                             C98970
                                                         PICTURE XE53 VALUE : HMC>1.
                                                                                                             C98970
                                                         PICTURE XE3].
PICTURE XX VALUE SPACE.
                                                                                                             C98970
                                                                                                             C98970
               ISCHROMAL SYNC
DATA-TY'E SYNC
MINUS-ONE COMPUTATIONAL
REPORT-ID SYNC.
30170
30180
                                                         PICTURE X.
                                                                                                             C98970
                                                                                                             C98970
30190
          01
                                                         PICTURE S999 VALUE -1 SYNC.
                                                                                                             C98970
C98970
               32000
                                                                                                             C98970
C98970
32010
32020
                                                                                                             C98970
32030
32040
 32050
                                                                                                             C98970
46000
46010
                                                                                                             C98970
46020
          01
                                                                                                             C98970
47U00
47U10
                                                                                                             C98970
          01
                                                                                                             C98970
                                                                                                             C98970
47015
47020
          01
                                                                                                             C98970
47030
47040
          01
                                                                                                             C98970
               HIST-DIST SYNC PHIST-INDEX SYNC COMPUTATIONAL
                                                         PICTURE X
47050
                                                                                                             C98970
                                                                               VALUE :1:.
47060
                                                                                                             C98970
47070
                                                         PICTURE S999
                                                                               VALUE ZERO.
                                                                                                             C98970
47080
          01
                HIST-INDEX-2 SYNC COMPUTATIONAL
                                                                                                             C98970
C98970
               HIST-TEMP SYNC
HIST-INTERVAL-SIZE SYNC
COMPUTATIONAL.
HIST-FLAG SYNC
HIST-SCALE-VALUE SYNC COMPUTATIONAL
PICTURE S999 VALUE (1.
PICTURE S999V99 COMPUTATIONAL.
PICTURE S999V99 COMPUTATIONAL.
PICTURE S999V99 COMPUTATIONAL.
                                                         PICTURE S999 VALUE ZERO.
PICTURE S9999999 VALUE ZERO.
PICTURE S999V99 VALUE ZERO
47090
47100
47110
                                                                                                             C98970
C98970
47120
47150
                                                                                                             C98970
C98970
47160
47170
47180
          01
                                                                                                             C98970
                                                                                                             C98970
          01
                                                                                                             C98970
47190
                                                                                                             C98970
                                                                                                             C98970
C98970
47200
                                                         PICTURE $999 VALUE ZERO
PICTURE $999 VALUE <75.
PICTURE $999.
47210
47220
          01
                HIST-PAUE-FLAG SYNC
HIST-LINE-CNT SYNC
                                                                                                             C98970
47230
          01
                                                                                                             C98970
          01 HIST-ERIC-1 SYNC
                                                         PICTURE XC101 VALUE
                                                                                                             C98970
47300
                                           :ERROR NO O:.
47320
          01 HIST-ERH-3 SYNC.
                                                                                                             C98970
          02 FILLER
02 HIS.-ERH-2
01 HIST-ERR-4 SYNC
                                                         PICTURE X(5] VALUE 185 > 1.
PICTURE S9(5) VALUE ZERO.
PICTURE X(10) VALUE
47330
                                                                                                             C98970
47340
                                                                                                             C98970
47350
                                                                                                             C98970
                                           1ERROR
                                                      MAX1.
                                                         PICTURE XC103 VALUE
47.370
          01 HIST-ERA-5 SYNC
                                                                                                             C98970
                                           1-MIN BAD. :.
                                                                                                             C98970
47380
               HIST-OUI-RANGE-VALUE SYNC
                                                          PICTURE S999 CUMPUTATIONAL.
47390
                                                                                                             C98970
47500
               FILLER SYNC.
                                                                                                             C98970
                02 FILLEN OCCURS 200 TIMES.
03 HIST-TABLE
03 HIST-UPPER-LIMIT
03 HIST-TABLE-SCALED
47510
                                                                                                             C98970
C98970
                                                         PICTURE S9[5] COMPUTATIONAL.
PICTURE S9999V99 COMPUTATIONAL.
PICTURE S999V99 COMPUTATIONAL.
47530
47540
47550
                                                                                                              C98970
                                                                                                             C98970
 47560
          01 HIST-NE A-PAGE SYNC.
                                                                                                             C98970
 47570
47580
                02 FILLER
02 FILLER
                                                         PICTURE X VALUE 111.
PICTURE XC122I VALUE SPACE.
PICTURE XC51 VALUE SPACE.
                                                                                                             C98970
                                                                                                             C98970
47582
47584
                     FILLER
HIS'-PAGE-NO
                                                                                                             C98970
                                                          PICTURE 9.
                02
 47590
                02 FILLER
HIST-TIILE SYNC.
                                                          PICTURE &
                                                                             VALUE 1#1.
                                                                                                             C98970
          01
                                                                                                             C98970
 47600
                02 FIL ER
02 HIS TITLE-1.
 47610
                                                         PICTURE X(3) VALUE :S 1.
                                                                                                             C98970
 47620
                                                                                                             C98970
47621
47630
47631
47640
                03 FILLER
02 H15(-TITLE-2.
03 FILLER
02 H15T-TITLE-3
                                                         PICTURE XC103 VALUE SPACE.
                                                                                                             C98970
                                                         PICTURE X[10] VALUE SPACE.
PICTURE X[10] VALUE SPACE.
PICTURE X[10] VALUE SPACE.
                                                                                                             C98970
                                                                                                             C98970
 47650
                      HIST-TITLE-4
                                                                                                             C98970
                 02
                      FILLER NO OF OBSERVATIONS >1.
 47660
                 02
                                                          PICTURE XE243 VALUE
                                                                                                             C98970
                                                                                                             C98970
 47680
                                                          PICTURE ZZZZ9
                                                                                                              C98970
                                                          PICTURE XC131 VALUE
                02 FILLER
 47690
                                                                                                             C98970
                      1 VALUE MAX > 1.
HIST-VALUE-MAX-RPT
                                                                                                             C98970
 47710
                                                          PICTURE .
                                                                                                             C98970
                 02
                      FILLER
1 VALUE MIN > 1.
HIS:-VALUE-MIN-RPT
                                                          PICTURE X[13] VALUE
                                                                                                             C98970
 47730
47740
                                                                                                             C98970
C98970
                                                          PICTURE -
                                                          PICTURE ----.9.
PICTURE X[18] VALUE
 47750
                                                                                                             C98970
C98970
                 02
                      FILLER
                HIST-UUT-LINE SYNC.
 47900
          01
                                                                                                             C98970
 47916
47920
47922
                                                          PICTURE XC503 VALUE
                                                                                                             C98970
                                                                                                             C98970
                 02 FILLER
                                                          PICTURE XC803 VALUE
                                                                                                             C98970
 47930
 47940
                       C98970
```

```
UZ FILLER PICTURE X[50] VALUE

1/ MIOPNT PCNT CUM FRE0 1...5...10...15...20.1.

02 FILLER PICTURE X[80] VALUE I...

125...30...35...40...45...50...55...60...65...70...75...80...

HIST-LIME-OUT SYNC.

02 FILLER
47950 01 HIST-LAUEL SYNC.
47960 02 FILLER
47970 1/ M
                                                                                                                                                                                                                       C98970
47960
47974
                                                                                                                                                                                                                       C98970
C98970
 47980
                 01
45000
                                                                                                                                                                                                                        C98970
                                02 FILLER
02 HISI-LINE-RPT
02 FILLER
 48010
                                                                                                                                                                                                                        C98970
                                                                                                                 PICTURE ZZ9.
PICTURE X VALUE SPACE.
PICTURE TENEN.
PICTURE ZZ9.9.
48020
                                                                                                                                                                                                                        C98970
48030
                                                                                                                                                                                                                        C98970
                                          HIST-MID-POINT-RPT
HIST-PERCENT-RPT
 48040
48060
                                02
                                                                                                                                                                                                                        C98970
                                                                                                                 PICTURE X VALUE SPACE.
PICTURE ZZZ9.
PICTURE ZZZZ9.
 48070
                                 02 FILLER
                                                                                                                                                                                                                        C98970
 MAURU
                                02 HIST-CUM-RPT
02 HIST-FREQ-RPT
                                                                                                                                                                                                                        C98970
                                02 HIS (=FREQ=RP)
02 FILLER
02 HIST-POINT OCCURS 100 TIMES
PICTURE X.
PICTURE X VALUE I#1.
 48100
                                                                                                                                                                                                                        C98970
 48110
                                                                                                                  PICTURE X VALUE SPACE.
 48120
                                                                                                                                                                                                                         C98970
 48130
                                                                                                                                                                                                                        C98970
                    02 FILLER
01 HIST-OUT-RANGE-REC SYNC.
                                                                                                                                                                                                                        C98970
C98970
 48140
 48150
                                HIST-OUT-RANGE-REC STNC.

OZ FILLER

OZ HIST-OUT-RANGE-RPT

OZ HIST-OUT-RANGE-RPT

OZ FILLER

OZ FILLER
 48160
 48170
                                                                                                                                                                                                                        C98970
 48180
                                                                                                                                                                                                                        C98970
 48190
                                                                                                                                                                                                                         C98970
 48191
                                                                                                                                                                                                                         C98970
 48200
                     01
                                HIST-SCALE-LINE SYNC.
                                                                                                                                                                                                                         C98970
                               HIST-SCALE-LINE

O2 FILLER

O2 HIST-SCALE-RPT

O2 FILLER

O3 FILLER

O4 FILLER

O5 FILLER

O6 FILLER

O7 FILLE
 48210
                                                                                                                                                                                                                         C98970
 48220
                                                                                                                                                                                                                         C98970
 48230
                                                                                                                                                                                                                         C98970
 48240
                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                         C98970
 48300
48310
                               FILLER SYNC. 02 HIST-VALUE OCCURS 1000 TIMES
                     01
                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                         C98970
                                                                                                                  PICTURE S9999V9 COMPUTATIONAL.
 48320
                    01 TASKT-HLC SYNC.
 48400
                                                                                                                                                                                                                         C98970
                                05 TASK7-ISO
05 FILLER
05 TASK7-ID
                                                                                         PICTURE X.
PICTURE XE9J.
PICTURE XE1J
 48410
                                                                                                                                                                                                                         C98970
 4841I
                                                                                                                                                                                                                         C98970
 48420
                                                                                                                                   VALUE IZI.
                                                                                                                                                                                                                        C98970
48440
                                          FILLER
TASK7-WUC
                                                                                          PICTURE XE11.
                                                                                                                                                                                                                        C98970
                                05
                                                                                                                                                                                                                         C98970
 48450
                                           FILLER
                                                                                           PICTURE X.
                                                                                                                                                                                                                         C98970
                                           TASK7-HMC
4845I
48452
                                                                                          PICTURE XEST.
                                                                                                                                                                                                                        C98970
C98970
                                05
                                           FILLER
 48460
                                05
                                           ME AN-RPT
                                                                                          PICTURE S9(7)V9.
                                           FILLER
48470
                                                                                                                                                                                                                        C98970
                                                                                          PICTURE S9073V9.
PICTURE X0103.
 48480
                                           VARIANCE-RPT
                                                                                                                                                                                                                        C98970
48490
                                          FILLER
                                05
                                                                                                                                                                                                                         C98970
                                                                                           PICTURE X VALUE INI.
48500
                                                                                                                                                                                                                         C98970
                    PROCEOURE DIVISION.

OPEN INPUT IN-FILE.
50000
 50010
                                                                                                                                                                                                                         C98970
                               OPEN OUTPUT HIST-FILE.

MOVE 10:00 TO KNT.

PERFORM RESET-TABLE THRU END-RST-TABLE.

READ IN-FILE, AT END GO TO CLOSE-FILES.
 50020
                                                                                                                                                                                                                         C98970
50030
                                                                                                                                                                                                                        C98970
 50040
50050
                                                                                                                                                                                                                         C98970
                    PARA-I. MOVE 1 TO HIST-NO-OF-OBS.
50100
                                                                                                                                                                                                                        C98970
 50110
                                MOVE MUC TO CUR-MUC.

MOVE MUC TO CUR-MUC.

MOVE MAL TO CUR-MUC.

MOVE LATA-TYPE-NEW TO DATA-TYPE.

MOVE ISCHRONAL-NEW TO ISCHRONAL.

IF UATA-TYPE NOT EQUAL TO ONE GO TO WEEKS-DATA ELSE GO TO
50120
                                                                                                                                                                                                                         C98970
 50130
                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                        C98970
50140
50150
50160
                                                                                                                                                                                                                        C98970
50170
                                                           FLT-DATA.
50200
                               NEAU IN-FILE, AT END GO TO CLOSE-FILES.

IF DATA-TYPE-NEW IS EQUAL TO 191 GO TO CLOSE-FILES.

IF MUC IS NOT EQUAL TO CUR-MUC GO TO PARA-2.

IF HMC IS NOT EQUAL TO CUR-MMC GO TO PARA-2.

AOO 1 TO HIST-NO-OF-OBS.

IF UATA-TYPE NOT EQUAL TO ONE GO TO WEEKS-DATA ELSE GO TO
50210
                                                                                                                                                                                                                        C98970
50220
50230
 50240
                                                                                                                                                                                                                         C98970
                                                                                                                                                                                                                        C98970
50250
 50260
50270
                                                                                   FLT-DATA.
                                                                                                                                                                                                                         C98970
50300
                                                                                                                                                                                                                        C98970
50310
                               PERFORM SET-HISTOG THRU END-SH.
PERFORM RESET-TABLE THRU END-RST-TABLE.
                                                                                                                                                                                                                        C98970
                                 GO TO PARA-1.
50330
50400
                    RESET-TABLE .
                                                                                                                                                                                                                         C98970
 50410
                                MOVE ZENO TO CHT.
                                                                                                                                                                                                                        C98970
                    RST.
50420
                                                                                                                                                                                                                         C98970
                   AGO I TU CNT.

MOVE MINUS-ONE TO MIST-VALUE [CNT].

MOVE ZEHO TO FREG-HIST-VALUE [CNT].

IF CNT IS LESS THAN KNT GO TO RST.

MOVE ZERO TO KNT.

ENU-RST-TAILE. EXIT.
50430
                                                                                                                                                                                                                        C98970
50440
50445
                                                                                                                                                                                                                         C98970
50450
                                                                                                                                                                                                                         C98970
 50455
                                                                                                                                                                                                                         C98970
50460
                                                                                                                                                                                                                         C98970
```

```
C98970
 50510
            SET-HISTOG.
                   PERFORM WRITE-HISTOGRAM THRU END-HIST.

IF HIST-FLAG IS EQUAL TO :1: THEN GO TO CF1.

ADD I TO NO-OF-HISTS.
                                                                                                                             C98970
 50590
 SABAU
 50610
                                                                                                                              C98970
            END-SH. EXIT.
 50620
51000
                                                                                                                              C98970
                                                                                                                              C98970
 51010
                   MOVE ZERO TO CHT.
                                                                                                                              C98970
            WEEK-A.
                                                                                                                             C98970
 51020
                   51030
                                                                                                                             C98970
 51040
                                                                                                                              C98970
 S1050
                                                                                                                             C98970
 51060
                                                                                                                              C98970
 51070
                                                                                                                             C98970
 51080
                    GO TO LFI.
                                                                                                                             C98970
 51090
51100
            WELK-B. MOVE ORS
                                                                                                                             C98970
                   MOVE OFS TO HIST-VALUE CONT.
IF ONT IS GREATER THAN KNT THEN MOVE ONT TO KNT.
                                                                                                                              C98970
 51110
                                                                                                                              C98970
 51120
                                                                                                                             C98970
                    ADD 1 TO FREQ-HIST-VALUE [CNT].
 51130
                                                                                                                              C98970
 51140
52000
            GO TO HEADI.
                                                                                                                              C98970
                                                                                                                              C98970
 52010
                   MOVE ZE 40 TO CHT.
                                                                                                                              C98970
            FLT-A.

ADD 1 TO CNT.

IF OBS-1 IS EQUAL TO HIST-VALUE [CNT] 60 TO FLT-C.

IF FRE, -HIST-VALUE [CNT] IS EQUAL TO ZERO GO TO FLT-B.

IF UNIT IS LESS THAN 1000 GO TO FLT-A.

DISPLAY : MORE THAN 1000 FREQUENCY OCCURENCES : UPON CONSOLE.
 52020
52030
                                                                                                                              C98970
                                                                                                                              C98970
                                                                                                                              C98970
 52040
52050
                                                                                                                             C98970
 52060
                                                                                                                              C98970
 52070
                                                                                                                              C90970
 S2U80
                    60 TO C=1.
                                                                                                                             C98970
 52090
52100
                                                                                                                             C98970
                    MOVE ORS-1 TO HIST-VALUE (CNT).

IF (NT IS GREATER THAN KNT THEN MOVE CNT TO KNT.
                                                                                                                              COROTA
 52110
                                                                                                                              C98970
 52120
                    ADD I TO FREQ-HIST-VALUE [CNT].
 52130
                                                                                                                              C98970
            GO TO HEAD1.

CLOSE-FILES.

PERFORM SET-HISTOG THRU END-SH.
 52140
52200
52205
                                                                                                                              C98970
                                                                                                                              C98970
                                                                                                                              C98970
            CF1.

CLOSE 1N-FILE, MIST-FILE.

IF HIST-FLAG IS EQUAL TO :1: DISPLAY : HIST ERROR : UPON CONSOLE.

DISPLAY : NO OF HISTOGRAMS > : NO-OF-HISTS UPON CONSOLE.

DISPLAY : EOJ C9897P : UPON CONSOLE.
 52207
52210
52211
                                                                                                                              C98970
                                                                                                                              C98970
                                                                                                                              C98970
 52212
                                                                                                                             C98970
 50215
52220
                                                                                                                             C98970
C98970
 52230
            COMPUTE-MEAN-VARIANCE.
 95000
                                                                                                                              C98970
                   IF HIST-NO-OF-OUS EQUAL TO 1 60 TO CMY-3. MOVE ZERO TO CNT. MOVE ZERO TO MEAN.
 95005
                                                                                                                              C98970
 95010
                                                                                                                              C98970
 95020
                                                                                                                              C98970
 95030
95040
                                                                                                                              C98970
                    ADD 1 TJ CNT.
                                                                                                                              C98970
                    COMPUTE TEMP-COMP > HIST-VALUE [CNT] . FREG-HIST-VALUE [CNT].
ADD TEMP-COMP TO MEAN.
 95050
 95060
                                                                                                                              COASTO
                   IF CNT IS LESS THAN KNT GO TO CMV-1.
DIVIDE "IIST-NO-OF-OBS INTO MEAN.
MOVE ZERO TO CNT.
MOVE ZERO TO VANIANCE.
 95070
95080
                                                                                                                              C98970
 95090
                                                                                                                              C98970
 95100
                                                                                                                              C98970
 95110
             CMV-2.
                                                                                                                              C98970
 95120
95130
                   ADD 1 TO CNT.
COMPUTE TEMP-COMP > [[HIST-VALUE [CNT] - MEAN] .. 2] .
                                                                                                                              C98970
                                                                                                                              C98970
 95140
95150
                                                                    FREQ-HIST-VALUE [CNT].
                                                                                                                              C98970
                   FREG-HIST-VALUE [CNT].

ADD TEMP-COMP TO VARIANCE.

IF CNI IS LESS THAN KNT GO TO CMV-2.

COMPUTE VARIANCE > VARIANCE / CHIST-NO-OF-OBS = 13.

MOVE MEAN TO MEAN-RPT.

MOVE VARIANCE TO VARIANCE-RPT.
                                                                                                                              COAGTO
 95160
                                                                                                                              C98970
 95170
95180
                                                                                                                              C98970
                                                                                                                              C98970
 95190
                                                                                                                              C98970
 95191
                    GO TO LMV-4.
                                                                                                                              C98970
                    MOVE ZERO TO VARIANCE-RPT.
MOVE HIST-VALUE [1] TO MEAN-RPT.
 95193
                                                                                                                              COASTO
 95194
                                                                                                                              C98970
 95195
95290
            CMV-4.
END-CMV.
                                                                                                                              C98970
                                                                                                                              C98970
             WRITE-HISTOGRAM.
PEPFORH COMPUTE-MEAN-VARIANCE THRU END-CMV.
 97000
97355
                                                                                                                              C98970
                   MOVE CUN-MUC TO TASKY-MUC.
MOVE CUN-HMC TO TASKY-HMC.
MOVE LISCHRONAL TO TASKY-ISO.
WRITE HIST-REC FROM TASKY-REC.
                                                                                                                              C98970
 97356
 97357
97358
                                                                                                                              C98970
                                                                                                                              C98970
 97360
                                                                                                                              C98970
 99990 ENU-HIST. EXIT.

PLACE COULL SOURCE BEFORE THIS CARD
                                                                                                                              C98970
                PLACE COUCLE SERVER INIS CARD
BIN DD +-SPACE>(CYL,(1:1)]

PLACE TFG DATA BEFORE THIS CARD
2 DU DISP>(COLD,KEEP):VOL>SER>+F1;UNIT>T+F1
2 DD DISP>(COL)KEEP):VOL>SER>+F8;UNIT>T+F8
RIN DD +-SPACE>(TRK,(1:1)]
 //CHG.TFGIN
                                                                                                                          1440 COS
/** PLAU
//TPR.TU12
//TPR.TU25
//TPR.TPRIN
///P TU12
T/P TU25
PLAU
                1010020Z0Z0
1010050Z050
PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

6.15.7 MERGE AND ADD WUC GROUP IDENTIFICATION

```
//T9897A JOB
//C9897A EXEC
                      01+: WANG
                                              : PRTY>02 - TYPRUN>HOLD
                      P9635L.TIME>03.ACCT>D35323007
                      DU DISPIT. PASS J.UNIT. X T+F2.1.DEFER J.DSN>+8.9897460.
VOL>SER>[+F2.A+F2.B+F2.C+F2.D+F2.E+F2.F+F2.G+F2.H+F2.
1+F2.J+F2.K+F2.L+F2.M+F2.N+F2.O+F2.P+F2.0+F2.R+F2.S+F2]
//CHG.TU13
                                                                                                         CT13
                     T13
//CHG. TU14
                                                                                                         CT14
                                                                                                          T14
//CHG. TU15
                                                                                                          T15
//CHG. TU22
                                                                                                         CT 22
         COMUINE COMPILE

10ENTIFICATION DIVISION.

PROGRAM—ID. C9897
AUTHOR, A. J. ROWKER

1NSTALLATION. GENERAL DYNAMICS/CONVAIR.

DATE—WRITTEN 25 JLY 72.

REMARKS. PROGRAM V11
//CHG. INPUT
                                                                                                          1440 CDS
C98970
                                                                           S. WANG.
01000
                                                                                                             C98970
01010
                                                                                                             C98970
01020
                                                                                                              C98970
01030
                                                                                                             C98970
01040
                                                                                                             C98970
                                                                                                             C98970
01050
                            ADD GROUP IDENTIFICATION
01060
          AND MERGE DATA. ENVIRONMENT DIVISION.
01070
                                                                                                              C98970
02000
                                                                                                             C98970
C98970
02010
          CONFIGURATION SECTION.
          SOURCE-COMPUTER. 18M-360. OBJECT-COMPUTER. 18M-360.
02020
                                                                                                              C98970
02030
                                                                                                             C98970
02100
          INPUT-OUTPUT SECTION. FILE-CONTROL.
                                                                                                             C98970
02110
02120
                                                                                                              C98970
                SELECT IN-FILE-1
                                                             ASSIGN TO UT-S-TU13
                                                                                                             C98970
                RESERVE I ALTERNATE AREA.
SELLCT IN-FILE-2
0213U
0214U
                                                                                                             C98970
                                                             ASSIGN TO UT-S-TU14
                                                                                                             C98970
                RESERVE I ALTERNATE AREA.

SELECT IN-FILE-3
RESERVE I ALTERNATE AREA.

SELECT CARD-FILE
RESERVE 1 ALTERNATE AREA.

SELECT OUTFILE
RESERVE 1 ALTERNATE AREA.
02150
                                                                                                             C98970
U216U
U217U
                                                             ASSIGN TO UT-S-TUIS
                                                                                                              C98970
                                                                                                              C98970
02180
                                                            ASSIGN 70 DA-S-DT01
02190
                                                                                                             C98970
02200
                                                             ASSIGN TO UT-S-TU22
                                                                                                             C98970
                      RESERVE I ALTERNATE AREA.
02210
                                                                                                              C98970
10000
          DATA DIVISION.
                                                                                                             C98970
10010
          FILE SECTIONS
FD IN-FILL-1
                                                                                                             C98970
11100
                RECORDING MODE IS F
BLOCK CONTAINS 60 RECORDS
RECORD CONTAINS 50
11120
                                                                                                             C98970
11130
                                                                                                             C98970
                                                           CHARACTERS
11150
                LABLL RECORDS ARE OMITTED DATA RECORDS ARE IN-REC-1.
                                                                                                              C98970
11160
                                                                                                             C98970
11170
                                                         PICTURE XESOJ,
                                                                                                             C98970
12100
          FO
                IN-F1LF-2
                                                                                                              C98970
                IN-FILE-2
RECORDING MODE IS F
BLOCK CUNTAINS 60 RECORDS
RECORD CONTAINS 50
LABEL RECORDS ARE OMITTED
                                                                                                             C98970
C98970
12130
                                                           CHARACTERS
12140
                                                                                                              C98970
12150
                                                                                                             C98970
12160
                DATA RECORDS ARE IN-REC-2.
                                                                                                              C98970
                                                          PICTURE XESOJ.
                IN-REC-2
IN-FILE-3
12170
                                                                                                             C98970
13100
                                                                                                             C98970
                RECORDING MODE IS F
13120
                                                                                                              C98970
                BLOCK CUNTAINS 60 RECORDS
13130
                                                                                                             C98970
13140
                RECURU CONTAINS 50
                                                           CHARACTERS
                                                                                                             C98970
                LABEL RECORDS ARE OMITTED DATA RECORDS ARE IN-REC-3.
13150
                                                                                                             C98970
                                                                                                             C98970
13170
                IN-HEC-S
                                                          PICTURE XESOJ,
                                                                                                              C98970
                CARD-FILE
RECUPDING MODE IS F
14100
          FD
                                                                                                             C98970
14130
                BLOCK CONTAINS 20 RECORDS
RECORD CONTAINS 80
                                                                                                              C98970
14140
                                                                                                             C98970
C98970
                                                           CHARACTERS
                LABEL RECORDS ARE STANDARD DATA RECORDS ARE CARD-REC.
14160
                                                                                                              C98970
                CARD-RES
                                                          PICTURE XCBOJ.
14170
                                                                                                              C98970
                OUTF ILE
                                                                                                              C98970
15100
                RECOPUTIG MODE IS F
BLOCK CONTAINS 60 RECORDS
15120
                                                                                                              C98970
15130
                                                                                                              C98970
                RECORD CONTAINS 50
LAHEL RECORDS ARE OMITTED
                                                           CHARACTERS
                                                                                                              C98970
15150
                                                                                                              C98970
                DATA RECORDS ARE OUT-REC.
15160
                                                                                                              C98970
```

```
15170
            01 OUT-REC
                                                                           PICTURE XESOL.
                                                                                                                                               C98970
            01 OUT-REL
WORKING-STOYAGE SECTION.
77 LAST-WUC-IN
77 INDEX-1 COMPUTATIONAL
77 INDEX-2 COMPUTATIONAL
77 MAX-NUM-WUC COMPUTATIONAL
77 NUM-REC-1 COMPUTATIONAL
77 NUM-REC-2 COMPUTATIONAL
77 NUM-REC-2 COMPUTATIONAL
77 NUM-REC-3 COMPUTATIONAL
77 NUM-REC-3 COMPUTATIONAL
30000
                                                                                                                                                C98970
                                                                          PICTURE XES VALUE SPACE.
PICTURE S999 VALUE ZERO.
PICTURE S999.
PICTURE S999.
PICTURE S999.
PICTURE S961 VALUE ZERO.
                                                                                                                                                C98970
                                                                                                                                                C98970
30030
                                                                                                                                                C98970
30040
                                                                                                                                                C98970
30050
                                                                                                                                                C98970
30060
                                                                                                                                                C98970
30070
                                                                                                                                                C98970
30080
                                                                                                                                                C98970
                     NUM-OUT-REC COMPUTATIONAL
30090
                                                                                                                                                C98970
                     CUR-GRP-1D
                                    FICTURE S999.

FICTURE S999.

FICTURE S199.

FICTURE 9(61).

FICTURE 9(61).

FICTURE 9(61).

FICTURE 8(50) VALUE.
30100
                                                                                                                                                C98970
             77
77
                                                                                                                                                COROTA
                     TEMP-NUM
30120
                                                                                                                                                C98970
30130
30140
             77
                                                                                                                                               C98970
                     NINE
40000
             01
                     WUC-TABLE SYNC.
                                                                                                                                                C98970
                     OS WUC-TABLE-5 OCCURS 50 TIMES PICTURE XXXXX.

SPEC-WUC-TABLE SYNC.

OS SPEC-WUC-TABLE OCCURS 20 TIMES PICTURE XXXXX.
40020
                                                                                                                                                C98970
40100
                                                                                                                                                C98970
40120
                                                                                                                                                C98970
                    DATA-IN-REC SYNC.
05 ISOU-MRONAL
05 GROUP-ID
05 FILLER
             01
40200
                                                                                                                                                C98970
                                                                           PICTURE X.
PICTURE 99.
PICTURE X.
40210
                                                                                                                                                C98970
40220
                                                                                                                                                C98970
40230
                                                                                                                                                C98970
                     05
05
05
                                                                           PICTURE XC5).
PICTURE X.
PICTURE X.
40240
                            GROUP-WUC
FILLER
                                                                                                                                               C98970
C98970
                            REC-ID
FILLER
40260
                                                                                                                                                C98970
40270
                     05
                                                                            PICTURE X
                                                                                                                                                C98970
40280
                             FILLER REDEFINES WUC-IN.
                                                                           PICTURE XEST.
                                                                                                                                                C98970
40290
                                                                                                                                                C98970
                     05
                            FILLER REDEFINES WUC-IN.

10 WUC-IN-2 PICTU
10 FILLER REDEFINES WUC-IN.
10 WUC-IN-3 PICTU
10 FILLER PICTU
40300
40310
                                                                           PICTURE XX.
PICTURE XXX.
                                                                                                                                                C98970
40320
                                                                                                                                                C98970
                     05
40330
                                                                           PICTURE XXX.
                                                                                                                                                C98970
                                                                                                                                                C98970
                            FILLER
HMC
                                                                           PICTURE X.
40350
                                                                                                                                                C98970
40360
                     05
05
                                                                                                                                                C98970
40370
                            FILLER
                                                                            PICTURE X.
                                                                                                                                                C98970
                                                                           PICTURE 907 JV9.
PICTURE X.
40380
                     05
                            FILLER
FILLER
                                                                                                                                                C98970
                     05
                                                                                                                                                C98970
                                                                           PICTURE 9[7]V9.
PICTURE X.
PICTURE 9[7]V9.
PICTURE XX.
                     05
                            FILLER
40400
                                                                                                                                               C98970
                     05
40410
                            FILLER
                                                                                                                                               C98970
                     05
                            FILLER
FILLER
40420
                                                                                                                                                C98970
40430
                                                                                                                                                C98970
                     NUM-WUC-REC SYNC.
05 NUM-WUC
05 FILLER
40700
                                                                                                                                                C98970
                                                                           PICTURE 99.
PICTURE XC781.
40710
                                                                                                                                                C98970
                                                                                                                                                C98970
40720
40730
                     WUC-IN-KEC SYNC.
                                                                                                                                                C98970
                     05 WUC
05 FILLER
                                                                            PICTURE XC51
                                                                                                                                                COROZO
40750
                                                                            PICTURE XC751.
                                                                                                                                                C98970
                    WUC-TEMP SYNC
FILLER KEDEFINES WUC-TEMP.
05 WUC-TEMP-2
05 FILLER
40800
                                                                            PICTURE XXXXX.
                                                                                                                                               C98970
BORIO
             01
                                                                           PICTURE XX.
PICTURE XXX.
                                                                                                                                                C98970
40820
40830
                                                                                                                                                C98970
                    FILLER REDEFINES WUC-TEMP.
05 WUC-TEMP-3
05 FILLER
FILLER REDEFINES WUC-TEMP.
                                                                                                                                                C98970
40840
                                                                           PICTURE XXX.
PICTURE XX.
                                                                                                                                                C98970
40850
40860
                                                                                                                                                C98970
                                                                                                                                                C98970
40870
                     05 FILLER
05 WUL-TEMP-3DIG
05 FILLER
40880
                                                                           PICTURE XX.
                                                                                                                                                C98970
                                                                           PICTURE X.
40890
                                                                                                                                                C98970
                                                                                                                                                C98970
40900
50000
             PROCEDURE DIVISION.
                                                                                                                                                C98970
                                                   IN-FILE-2.
IN-FILE-2.
IN-FILE-3.
50010
                     OPEN IMPUT
                                                                                                                                                C98970
                                                                                                                                               C98970
C98970
50020
50030
                     IN-FILE-3,
CARD-FILE.

OPEN OUIPUT OUTFILE.

READ CA:D-FILE INTO NUM-WUC-REC, AT END 00 TO CLOSE-FILES.

MOVE ZERO TO INUEX-1.

MOVE HUM-WUC TO MAX-NUM-WUC.
50040
                                                                                                                                                C98970
50050
                                                                                                                                                C98970
50100
                                                                                                                                                C98970
50110
                                                                                                                                                C98970
50115
                                                                                                                                                C98970
50120
              INPUT-WUC-LAST.
                     ADD I TO INDEX-1.

READ CARD-FILE INTO MUC-IN-REC, AT END GO TO CLOSE-FILES.

MOVE MUC TO MUC-TABLE-S (INDEX-1).

IF INUE (-1 IS LESS THAN NUM-MUC GO TO INPUT-MUC-LIST.

READ CARD-FILE INTO NUM-MUC-REC, AT END GO TO CLOSE-FILES.
50130
50140
                                                                                                                                                C98970
                                                                                                                                                C98970
50150
50170
                                                                                                                                                C98970
                                                                                                                                                C98970
50200
                                                                                                                                                C98970
             READ CARD-FILE INTO NUM-MUC-REC, AT END GO TO CLOSE-FILES, MOVE ZENO TO INDEX-1.

MOVE NUM-MUC TO MAX-SPEC-MUC.

INPUT-SPEC-MUC-LIST,

ADD I TO INDEX-1.

READ CAND-FILE INTO MUC-IN-REC, AT END GO TO CLOSE-FILES,

MOVE MUC TO SPEC-MUC-TABLE (INDEX-1).

IF INDEX-I IS LESS THAN NUM-MUC OO TO INPUT-SPEC-MUC-LIST.
50210
                                                                                                                                                C98970
50215
                                                                                                                                                C98970
50220
                                                                                                                                                C98970
                                                                                                                                               C98970
50230
50240
                                                                                                                                                C98970
50250
50270
                                                                                                                                                C98970
```

```
C98970
51000
          READ-FILE-I.
                READ IN-FILE-1 INTO DATA-IN-REC. AT END SO TO READ-FILE-2.
                                                                                                                  C98970
51010
                                                                                                                  C98970
                 ADD 1 TO NUM-REC-1.
PERFORM PROCESS-WUC THRU END-P-W.
51020
51100
51110
51110
                 GO TO HLAD-FILE-1.
                                                                                                                  C98970
          REAU-FILE-2:
REAU-FILE-2 INTO DATA-IN-REC: AT END GO TO READ-FILE-3.
ADD 1 TU NUM-REC-2:
PERFORM PROCESS-WUC THRU END-P-W.
                                                                                                                  C98970
                                                                                                                  C98970
                                                                                                                  C98970
51115
51120
                                                                                                                  C98970
          GO TO N'.AD-FILE-2.
READ-FILE-3.
                                                                                                                  C98970
51130
51200
                READ IN-FILE-3 INTO DATA-IN-REC: AT END GO TO CLOSE-FILES. ADD 1 TO NUM-REC-3.
                                                                                                                  C98970
                                                                                                                  C98970
51215
                 PERFORM PROCESS-WUC THRU END-P-W.
                                                                                                                  C98970
                                                                                                                  C98970
                 GO TO HEAD-FILE-3.
51230
           PROCESS-WUC.
                                                                                                                  C98970
52000
                IF WUC-:N-2 IS EQUAL TO LAST-WUC-IN GO TO WRITE-OUTREC.

MOVE SPEC-WUC-TABLE [1] TO WUC-TEMP.

IF WUC-:N-2 IS EQUAL TO WUC-TEMP-2.

GO TO PROCESS-SPECIAL-WUC.
52010
                                                                                                                  C98970
52015
52020
                                                                                                                  C98970
                                                                                                                  C98970
52030
                                                                                                                  C98970
                 MOVE ZERO TO INDEX-1.
52040
                                                                                                                  C98970
52050
           TEST-WUC.

ADD I TO INDEX-1.

MOVE WUC-TABLE-5 [INDEX-13 TO WUC-TEMP.
52060
                                                                                                                  C98970
52065
                                                                                                                  C98970
                 IF WUC-IN-2 IS EQUAL TO WUC-TEMP-2.
GO TO SAME-WUC-2.
52070
52UA0
                                                                                                                  C98970
                 IF INDEX-1 IS LESS THAN MAX-NUM-WUC GO TO TEST-WUC. MOVE SPACE TO LAST-WUC-IN.
52090
                                                                                                                  C98970
52100
                                                                                                                  C98970
                 GO TO END-P-W.
52110
                                                                                                                  C98970
          SAME-MUC-2.

HOVE WUC-TABLE-5 [INDEX-1] TO MUC-TEMP.

IF WUC-IEMP-3DIG

GO TO WRITE-OUTRECAL.

IF WUC-:N-3 IS EQUAL TO WIC-TEMP-3
52200
52205
                                                                                                                  C98970
52210
                                                                                                                  C98970
52220
52230
                                                                                                                  C98970
                                                                                       60 TO
                                                                                                                  C98970
52240
                                                            WRITE-OUTREC-1.
                                                                                                                  C98970
                ADD I TO INDEX-1.

1F INDEX-1 IS GREATER THAN MAX-NUM-WUC
DISPLAY: PROBLEM IN SAME-WUC-2 I UPON CONSOLE
52250
52260
                                                                                                                  C98970
                                                                                                                  C98970
52270
                                                                                                                  C98970
52280
                               GO TO CLOSE-FILES.
                                                                                                                  C98970
                 GO TO SAME-WUC-2.
52290
                                                                                                                  C98970
           WRITE-OUTRLE.
52400
                                                                                                                  C98970
                 MOVE CUH-GRP-ID TO GROUP-ID.
52410
                                                                                                                  C98970
52420
                 MOVE CUR-WUC TO GROUP-WUC.
                                                                                                                  C98970
                 WRITE OUT-REC FHOM DATA-IN-REC.
52430
                                                                                                                  C98970
                 ADD 1 F NUM-OUT-HEC.
52440
                                                                                                                  C98970
                 MOVE WUL-IN TO LAST-WUC-IN.
52450
                                                                                                                  C98970
          GO TO LND-P-W. PROCESS-SPE_IAL-WUC.
52460
                                                                                                                  C98970
52500
                                                                                                                  C98970
52510
                                                                                                                  C98970
                 IF WILC-IN IS EQUAL SPEC-WUC-TABLE CINDEX-23 GO TO SPEC-WUC-1.
52520
                                                                                                                  C98970
          PROCESS-SPEL-WISC-3.
ADD 1 TO INDEX-2.
MOVE SPEC-WISC-TABLE (INDEX-2) TO WISC-TEMP.
52600
                                                                                                                  C98970
52010
52615
                                                                                                                  C98970
                 IF WUC-1N-3 IS EQUAL TO WUC-TEMP-3
GU TO SPEC-WUC-1.
IF IPUE>-2 IS LESS THAN MAX-SPEC-WUC 60 70
                                                                                                                  C98970
52620
                                                                                                                  C98970
                                                                                                                  C98970
52640
52650
                                               PROCESS-SPEC-WUC-3.
                                                                                                                  C98970
                 MOVE SPACE TO LAST-WUC-IN.
GO TO END-P-W.
52060
                                                                                                                  C98970
52670
52700
           SPEC-WUC-1.
                                                                                                                  C98970
                COMPUTE CUR-GRP-ID > INDEX-2 < MAX-NUM-WUC.
MOVE SPEC-WUC-TABLE [INDEX-2] TO CUR-WUC.
GO TO WHITE-OUTREC.
52710
                                                                                                                  C98970
52720
                                                                                                                  C98970
52730
                                                                                                                  C98970
          WRITE-OUTHECTI.

MOVE INDEX-1 TO CUR-GRP-ID.
52800
                                                                                                                  C98970
                                                                                                                  C98970
52810
          MOVE WUC-TABLE-5 [INDEX-1] TO CUR-WUC.
GO TO WRITE-OUTREC.
ENO-P-W. EXIT.
CLOSE-FILES.
                                                                                                                  C98970
52820
52830
52990
55000
                                                                                                                  C98970
                MOVE NUM-REC-1 TO TEMP-NUM,
DISPLAY I'NO. RECS FILE 1 I TEMP-NUM UPON CONSOLE,
MOVE NUM-REC-2 TO TEMP-NUM,
DISPLAY : NO. RECS FILE 2 I TEMP-NUM UPON CONSOLE.
55010
                                                                                                                  C98970
55020
                                                                                                                  C98970
55030
                                                                                                                  C98970
55040
                                                                                                                  C98970
                MOVE NUM-PEC-3 TO TEMP-NUM.
DISPLAY: NO. RECS FILE 3 I TEMP-NUM UPON CONSOLE.
MOVE NUM-OUT-REC TO TEMP-NUM.
DISPLAY: NO. OUTRECS I TEMP-NUM UPON CONSOLE.
COMPUTE INDEX-1 > NUM-OUT-REC - NUM-OUT-REC / 60 + 60.
IF INDEX-1 IS EQUAL TO ZERO GO TO CF-1.
55050
                                                                                                                  C98970
55060
                                                                                                                  C98970
55070
                                                                                                                  C98970
55080
                                                                                                                  C98970
55100
55110
                                                                                                                  C98970
```

```
C98970
 55120 CF-2.

55130 WRITE OUT-REC FROM NINE.

55140 ADD 1 TO INDEX-1.

55150 IF INDEX-1 IS LESS THAN 60 60 TO CF-2.

55200 CF-1.
 55150 IF INDEX-1 IS LESS THAN 60 60 TO CF-
55200 CF-1.
55210 CLOSE IN-FILE-1,
55220 IN-FILE-2,
55230 IN-FILE-3,
55240 CARD-FILE,
55250 OUTFILE WITH LOCK.
55260 DISPLAY ! E0J C9897 ! UPON CONSOLE.
55270 GOBACK.

PLACE COBOL SOURCE BEFORE THIS CARD
OLOGOU OF SPACE CYL.(1.1]
00U00 GET TF6
01001 019999 REPLACE
TGG D101 11 0202080
                                                                                                                                                                                                                                        1440 CDS
C98970'T
                                                                                                                                                                      WANG
  43
11J
11K
11
  128
12
  13C
13J
13
14
23K
23M
23N
23N
   235
  23
41F
  41
42E
  426
42
45
45
45
45
46
46
46
46
46
  46H
46J
46
47
49A
49
```

6.15.8 SORT MANHOUR AND NORM DATA

6.15.9 MEANS OF WUC SET

```
CT12
                                                                                                          T12
D23-OUT
                                                                                                           D24-OUT
                                                                                                           1440 CDS
C98970
           COMMINE COMP
IDENTIFICATION DIVISION.
PROGRAM-ID. C9897
 00000
                                       COMPTLE
 01000
 01010
                                                                                                             C98970
           AUTHOR, A. J. BOWKER.

1NSTALLATION, GENERAL DYNAMICS/CONVAIR.
 01020
 01030
                                                                                                              C98970
 01040
           DAIL-WRITTEN, 27 JLY 72.
                                                                                                              C98970
           REMARKS.
 01050
                                                                                                              C98970
          TASK V11-5
COMPUTE PASS NO 1.
ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. IBM-360.
OBJECT-COMPUTER. IBM-360.
 01060
                                                                                                              C98970
 01070
                                                                                                             C98970
 02000
                                                                                                              C98970
 02010
                                                                                                             C98970
 02020
 02030
                                                                                                              C98970
           INPUT-OUTPUT SECTION.
                                                                                                             C98970
 02110
           FILE-CONTROL.
SELECT IN-FILE-I
                                                             ASSIGN TO UT-S-TU12
                                                                                                             C98970
C98970
C98970
                 RESERVE 1 ALTERNATE AREA.
SELECT FILE-2
RESERVE 1 ALTERNATE AREA.
 02130
 02140
                                                             ASSIGN TO UT-S-TU23
 02150
                                                                                                             C98970
C98970
                 SELECT FILE-3
RESERVE I ALTERNATE AREA.
 02160
                                                             ASSIGN TO UT-S-TU24
 02170
           DATA DIVISION.
 10000
                                                                                                              C98970
           FILE SECTION.
FO IN-FILE-1
 10010
                                                                                                              C98970
 11100
                                                                                                              C98970
 11110
                                                                                                             C98970
                 RECORDING MODE 15 F
BLOCK CONTAINS 60 RECORDS
                                                                                                             C98970
C98970
C98970
 11130
                 RECORD CONTAINS 50
LABEL RECORDS ARE OMITTED
DATA RECORDS ARE IN-REC-1.
 11140
                                                           CHARACTERS
                                                                                                             C98970
                                                                                                             C98970
C98970
C98970
 11170
           01
                 IN-HEC-1 SYNC.
                 05 150
05 GRP=10
                                                         PICTURE X.
PICTURE XX.
PICTURE XE73.
PICTURE X.
PICTURE X.
 11180
 11184
                      FILLER
 11186
                 05
                                                                                                             C98970
 11190
11200
                      JU
FILLER
                 05
                                                                                                             C98970
                     FILLER
DATA-IN.
SILLER
 11210
                                                          PICTURE XEB 3.
                 015
                                                          PICTURE X.
 11230
                                                                                                             C98970
                                                         PICTURE XE43,
PICTURE 9673V9.
PICTURE X.
PICTURE 9673V9.
PICTURE XE93,
                      10 FILLER
10 NORM-MA
 11240
                                                                                                             C98970
                                                                                                             C98970
C98970
C98970
C98970
C98970
C98970
 11260
                      10 FILLER
10 VAR-NORM-MA
 11280
                            FILLER
 11290
           FU FILE-2
                      FILLER
                                                          PICTURE XX.
 12100
 12110
                                                                                                             C98970
12120
                 RECORDING MODE 15 F
BLOCK CONTAINS 60 RECORDS
                                                                                                              C98970
                 RECORD CONTAINS 50
                                                           CHARACTERS
                                                                                                             C98970
```

```
LARLL RECORDS ARE OMITTED DATA RECORDS ARE REC-2. REC-2 SYNC
12150
                                                                                                                                    C98970
12160
                                                                                                                                     C98970
       12170
                                                                      PICTURE XC503.
                                                                                                                                     C 08970
13100
                                                                                                                                     C98970
13110
                                                                                                                                     COROTO
13120
13130
13140
                                                                                                                                     C98970
                                                                                                                                     C98970
                                                                                                                                     COAGTO
13150
                                                                                                                                     C98970
13160
                                                                                                                                     C98970
13170
                                                                                                                                     C98970
30000
                                                                                                                                     C98970
30010
                                                                                                                                     COAGTO
30020
                                                                                                                                     C98970
30030
                                                                                                                                     C98970
30040
                                                                                                                                     C98970
30050
                                                                                                                                     C98970
                                                                                                                                    C98970
30060
30070
SOUAD
                                                                                                                                     C98970
30090
                                                                                                                                     C98970
30100
                                                                                                                                     C98970
30110
                                                                                                                                     C98970
30120
                                                                                                                                     C 98970
30130
                                                                                                                                     C98970
                                                                     PICTURE XISJ VALUE SPACE.
PICTURE X VALUE III.
PICTURE X VALUE III.
PICTURE X VALUE III.
PICTURE X VALUE III.
PICTURE 9083.
30140
                                                                                                                                     C98970
30150
                                                                                                                                     COROTA
30160
                                                                                                                                     C98970
30170
                                                                                                                                     C98970
                    TEMP-NUM
30180
                                                                                                                                     C98970
                   DATA-1 SYNC.
US HMC-1
US FILLER
US NUMA
30200
            01
                                                                                                                                     C98970
30210
                                                                      PICTURE XXX.
                                                                                                                                     COROTO
                                                                     PICTURE XXX.
PICTURE X.
PICTURE 9C7 JV9.
PICTURE 9C7 JV9.
PICTURE X.
30220
                                                                                                                                     C98970
30230
                                                                                                                                     C98970
30240
                    05
                          FILLER
                                                                                                                                     C98970
                   05 NRLP-HP
                                                                                                                                     C98970
30260
                                                                                                                                     C98970
                  05 NREP-PE
DATA-2 SYNC.
05 HMC-2
05 FILLTR
30270
30300
                                                                      PICTURE 9073V9.
                                                                                                                                     C98970
            01
                                                                                                                                     C98970
30310
                                                                      PICTURE XXX.
                                                                                                                                     C98970
                                                                     PICTURE X.
PICTURE 9C73V9.
PICTURE 9C73V9.
PICTURE 9C73V9.
PICTURE 9C73V9.
PICTURE XC93.
PICTURE XC93.
30320
30330
30340
30350
                                                                                                                                     C98970
                  05 MH-MA
05 FILLER
05 VAR-MH-MA
05 FILLER
                                                                                                                                     C98970
                                                                                                                                     C98970
                                                                                                                                     C98970
C98970
30360
30400
            01
                                  C98970
32170
                                                                                                                                     C98970
            01
                    WS-REC-2.
                                                                     PICTURE X.
PICTURE XX.
PICTURE X(9) VALUE SPACE.
PICTURE X(5),
PICTURE X(5) VALUE SPACE.
PICTURE Y VALUE SPACE.
PICTURE X VALUE SPACE.
PICTURE Y VALUE SPACE.
PICTURE X(11) VALUE
32180
32190
                    05
                          150-2
GHP-10-2
                                                                                                                                     C98970
                                                                                                                                     C98970
32200
                          FILLER
                                                                                                                                     C98970
                         WUC-REC-2
32210
                                                                                                                                     C98970
32220
                   05
                                                                                                                                     C98970
32230
                          N2
32240
                          FILLER
32250
32260
                                                                                                                                     C98970
                          FILLER
                                                                                                                                     C98970
32270
                                                     #1.
                                                                                                                                     C98970
33170
            01
                   WS-REC-J
                                                                                                                                     C98970
                                                                     PICTURE X.
PICTURE XX.
PICTURE X VALUE SPACE.
PICTURE Y VALUE SPACE.
PICTURE X VALUE SPACE.
PICTURE X VALUE SPACE.
PICTURE X VALUE SPACE.
PICTURE X VALUE SPACE.
PICTURE Y VALUE SPACE.
PICTURE X VALUE I $1.
                   05
05
                                                                                                                                     C98970
33180
                          150-3
                                                                      PICTURE X.
33190
33200
33210
                                                                                                                                     C98970
C98970
C98970
                          GRP-+D-3
                    U5
U5
                          FILLER
MH-LMA
33230
                          FILLER
                    05
05
                                                                                                                                     C98970
                          NI
FILLER
                                                                                                                                     C98970
                    05
05
05
33240
33250
                          NORM-UMA
                                                                                                                                     C98970
33260
                           FILLER
                                                                                                                                     C98970
                          MH-KEP-PE
                                                                                                                                     C98970
C98970
33270
                    05
33280
                          FILLER
                    05
33290
33300
                           MH-HEP-HP
                          FILLER
                    05
                                                                                                                                     C98970
            PROCEDURE DIVISION.

OPEN INPUT IN-FILE-1.

OUIPUT FILE-2.

FILE-3.
50000
                                                                                                                                     C98970
                                                                                                                                     C98970
50010
50020
50030
50050
                                                                                                                                     C98970
                    PERFORM RESET-1.
                                                                                                                                     C98970
                                                                                                                                     C98970
C98970
C98970
50060
                    PERFORM RESET-2.
            PERFORM RESETTE:

READ-DATA-IN.

READ IN-FILE-1: AT END GO TO CLOSE-DATA:

IF ISO IS EQUAL TO 191 GO TO CLOSE-DATA:

ADD 1 TO NUM-REC-1:

IF ISO IS EQUAL TO CURISO GO TO TEST-GRP-ID:

IF CURISO IS EQUAL TO SPACE

MOVE ISO TO CURISO

OO TO TEST-GRP-ID:
50100
50110
50111
                                                                                                                                     C98970
                                                                                                                                     C98970
50115
50120
50130
                                                                                                                                      C98970
50140
                                                                                                                                     C98970
50160
                    GO TO HEW-GROUP.
```

```
C98970
50200 TEST-GRP-10.
                                                                                                                                                  C98970
                  IF GRP-ID IS EQUAL TO CURID GO TO TEST-WUC.

IF CURID IS EQUAL TO SPACE

MOVE GRP-ID TO CURID

GO TO TEST-WUC.

GO TO NEW-GROUP.
 50210
50220
                                                                                                                                                  C98970
50230
                                                                                                                                                  C98970
 50240
50250
                                                                                                                                                  C98970
           TEST-MUC.

IF WUC IS EQUAL TO CURMUC GO TO TEST-ID.

IF CURMUC IS EQUAL TO SPACE

MOVE WUC TO CURMUC

GO TO TEST-ID.
 50300
                                                                                                                                                  C98970
 50310
                                                                                                                                                  C98970
50320
                                                                                                                                                  COROTA
 50330
                                                                                                                                                  C989")
 50340
                                                                                                                                                  C989 1
 50350
           GO TO NEW-WUC.
TEST-ID.
IF JD IS EQUAL TO ONE MOVE DATA-IN TO DATA-1
GO TO READ-DATA-IN.
IF JD IS EQUAL TO 7WO MOVE DATA-IN TO DATA-2
GO TO TEST-HMC.
IF JD IS EQUAL TO 7HREE
COMPUTE NORM-UMA-NUM > NORM-UMA-NUM < N2 * NORM-NA
GO TO READ-DATA-IN.
DISPLAY . BAD ID 1 JD UPON CONSOLE
GO TO CLOSE-FILES.
                                                                                                                                                  C98970
50400
                                                                                                                                                 C98970
                                                                                                                                                  C98970
 50430
                                                                                                                                                  C98970
 50440
 50450
 50460
                                                                                                                                                  C98970
 50470
                                                                                                                                                 C98970
50480
 50490
 50500
                                                                                                                                                 C98970
                     THIML-1 IS NOT EQUAL TO HIMC-E SO TO READ-DATA-IN.

COMPULE MI-MA-NUMA > MM-MA-NUMA < MM-MA = NUMA.

ADD NUMA TO NI.

ADD NUMA TO N2.

COMPUTE C > C < MM-MA = NUMA.

COMPUTE MM-KEP-PE-N > MM-KEP-PE-N < MM-MA = NREP-PE.
 50520
                                                                                                                                                  C98970
 50530
                                                                                                                                                  C98970
 50540
 50550
                                                                                                                                                  COROTO
                                                                                                                                                 C98970
                      COMPUTE MH-KEP-HP-N > MH-REP-HP-N < MH-MA . NREP-HP.
 50570
                                                                                                                                                  C98970
                      ADD NREP-PE TO NREP-PE-D.
ADD NREP-HP TO NREP-HP-D.
 50580
                                                                                                                                                  C98970
                                                                                                                                                  C98978
 50590
 50000
 50090
                      GO TO READ-DATA-IN.
                                                                                                                                                  C98970
             NEW-WUC.

MOVE CURISO TO 150-2.

MOVE CURISO TO GRP-ID-2.

MOVE CURID TO GRP-ID-2.

WRITE REC-2 FROM WS-REC-2.

ADD 1 TO NUM-REC-2.
 51000
                                                                                                                                                  COROTA
 51010
                                                                                                                                                  C98970
 51020
                                                                                                                                                  C98970
 51025
                                                                                                                                                  C98970
51030
                                                                                                                                                  C98970
 51040
                                                                                                                                                  C98970
                      PERFORM RESET-1.

MOVE WILL TO CURWUC.

GO TO TEST-1D.
 51050
 51060
                                                                                                                                                  C98970
 51090
                                                                                                                                                  C98970
             NEW-GROUP.
51100
 51110
                    IF N1 15 EQUAL TO ZERO DISPLAY 1 N1 IS ZERO ! CURMUC CURIO
                                                                                                                                                  C98970
                      UPON CONSOLE GO TO CLOSE-FILES.

COMPUTE MH-UMA > MH-MA-NUMA / NI.

COMPUTE NORM-UMA > NORM-UMA-NUM / NI.

F NRP-"E-D IS EQUAL TO ZERO MOVE ZERO TO MM-REP-PE

GO 10 NG-1.
51120
                                                                                                                                                  C98970
51130
                                                                                                                                                  C98970
                                                                                                                                                  C98970
51150
51160
                                                                                                                                                  C98970
                      COMPUTE MH-REP-PE > MH-REP-PE-N / NREP-PE-D.
 5117U
                                                                                                                                                  C98970
 51175
             NG-1.
                                                                                                                                                  C98970
                      IF NWLP-WP-U IS FOUNDE TO ZERO MOVE ZERO TO MM-REP-MP
UD IN NO-2.
COMPUTE MH-KEP-HP > MM-KEP-HP-N / NREP-HP-D.
 51100
                                                                                                                                                  C98970
51140
                                                                                                                                                  C98970
 51200
                                                                                                                                                  C98970
            NG-2.

MOVE CURISO TO 150-3.

MOVE CURISO TO SEP-ID-3.

WRITE REC-3 FROM WS-REC-3.

ADD 1 TO NUM-REC-3.

PERFORM RESET-2.

MOVE CURISO TO 150-2.
51205
                                                                                                                                                  C98970
 51210
                                                                                                                                                  C98970
51220
                                                                                                                                                  C98970
 51230
                                                                                                                                                  C98970
51240
51250
                                                                                                                                                  C98970
                     MOVE CURISO TO 150-2.

MOVE CURISO TO GRP-ID-2.

MOVE CURID TO GRP-ID-2.

MOVE CURWUC TO MUC-REC-2.

MRITE KEC-2 FROM WS-REC-2.

PERFORM MESET-1.
51260
                                                                                                                                                  C98970
51270
                                                                                                                                                  C98970
51280
                                                                                                                                                  C98970
51285
                                                                                                                                                  C98970
                      ADD I TO NUM-REC-2.
                                                                                                                                                  C98970
             NEW-GROUP-LID. EXII.

NEW-GROUP-CONTINUE.

MOVE WUL TO CURWUC. MOVE GRP-ID TO CURID.

MOVE ISO TO CURISO.

GO TO TEST-ID.
51360
                                                                                                                                                  C98970
51365
                                                                                                                                                  C98970
51370
                                                                                                                                                  C98970
51380
51390
             GO TO TEST-ID.

CLOSE-DATA.

PERFORM NEW-GROUP THRU NEW-GROUP-END.

MOVE NUM-REC-1 TO TEMP-NUM.

DISPLAY : NO. RECS FILE I TEMP-NUM UPON CONSOLE.

MOVE NUM-REC-2 TO TEMP-NUM.

DISPLAY : NO. RECS FILE 2 : TEMP-NUM UPON CONSOLE.

MOVE NUM-REC-3 TO TEMP-NUM.

DISPLAY : NO. RECS FILE 3 : TEMP-NUM UPON CONSOLE.

CLOSE-FILE 3 : TEMP-NUM UPON CONSOLE.
                                                                                                                                                  C98970
52000
                                                                                                                                                  C98970
                                                                                                                                                  C98970
                                                                                                                                                  C98970
52110
                                                                                                                                                  C98970
52120
                                                                                                                                                  C98970
52130
                                                                                                                                                  C98970
52140 52150
                                                                                                                                                 C98970
52200
             CLUSE-FILES.
PERFORM NINE-FILL THRU END-NF.
                                                                                                                                                  C98970
52210
                     CLOSE IN-FILE-1:
FILE-2:
FILE-3 WITH LOCK.
52220
                                                                                                                                                  C98970
52230
52240
                                                                                                                                                  C98970
62250
                     DISPLAY 1 EOJ 9897 I UPON CONSOLE.
                                                                                                                                                  C98970
52290
                      GOBACK.
                                                                                                                                                  C98970
```

```
53000 RESET-1.
                                                                                                                           C08970
                  MOVE ZENO TO N2.
MOVE ZENO TO C.
                                                                                                                           C98970
53010
53020
          MOVE ZERO TO NI.

MOVE ZERO TO NORM-UMA-NUM.

MOVE ZERO TO MH-MA-NUMA.

MOVE ZERO TO MH-REP-PPE-N.

MOVE ZERO TO MREP-PPE-D.

MOVE ZERO TO NREP-PP-D.
                                                                                                                            C98970
53100
                                                                                                                           C98970
53110
53120
                                                                                                                           C98970
C98970
53130
                                                                                                                            C98970
53150
53160
                                                                                                                            C98970
                                                                                                                            C98970
53170
                                                                                                                            C98970
53200
                                                                                                                           C98970
C98970
53300
                  COMPUTE CNT > NUM-REC-2 - NUM-REC-2 / BF + BF.
53310
53320
                  IF CHT IS EQUAL TO ZERO GO TO NF-3.
                                                                                                                            C98970
53330
                                                                                                                            C98970
                                                                                                                            C98970
                  WRITE REC-2 FROM NINE.
53340
53350
53360
                  ADD 1 TO CNT.
1F CNT IS LESS THAN BF GO TO NF-4.
                                                                                                                            C98970
                                                                                                                            C98970
53400
                  COMPUTE LNT > NUM-REC-3 - NUM-REC-3 / BF + BF.
53410
                                                                                                                            C98970
                   IF CHT 13 EQUAL TO ZERO GO TO END-NF.
                                                                                                                            C98970
53420
                                                                                                                            C98970
53430
            NF-5.
53440
53450
                  WRITE REC-3 FROM NINE.
                                                                                                                            C98970
                  ADD 1 TO CHT.
IF CHT IS LESS THAN RF 60 TO NF-5.
                                                                                                                            C98970
                                                                                                                            C98970
53460 IF CNT IS LESS THAN RF GU TO NF-5.
53490 ENU-NF. EXII.

/* PLACE COHOL SOURCE BEFORE THIS CARD

//CHG.TFGIN DD +.5PACESICYL/(1:13)

/* PLACE TFG DATA BEFORE THIS CARD

//TPR.TU12 DD DISP/(OLD, KEEP), VOLSER>+F1.UNIT>T+F1

//TPR.TU24 DU UISP/(OLD, PASS)

//TPR.TPRIN DD +.5PACESITRK.(1:13)
                                                                                                                            C98970
                                                                                                                        1440 CDS
                                                                                                                        T12
//TPR.TPRIN
T/P TU12
T/P TU23
T/P TU24
                                  ., SPACE SETHK, C1.133
                         DD
                      10100502050
                      1010057Z050
1010050Z050
               PLACE T/P CONTROL CARDS BEFORE THIS CARD
```

6.15.10 VARIANCE OF WUC SET

```
CT12
CT12
T12
                                                                                                                               023-IN
                                                                                                                               D24-1N
                          DD DSN>+P.9897467:SPACE>[CYL:E009:001]]
DD *.SPACE>[CYL:[1:1]]
COMJINE COMPILE 6. WAR
//CHG.TU25
                                                                                                                               D25-0UT
                                                                                                                               1440 CDS
00000
                                                                                                                                  C98970
OUODO IDENTIFICATION DIVISION.
01010 PROGRAM-ID. C9897
01020 AUTHOR. A. J. BOWKER.
01030 INSTALLATION. GENERAL DYNAMICS/CONVAIR.
01040 DATE-WRITTEN. 27 JLY 72.
                                                                                                                                  C98970
C98970
                                                                                                                                   C98970
                                                                                                                                   C98970
                                                                                                                                   C98970
O1050 REMARKS.

01060 TASK VII-6
01070 COMPUTE PASS NO 2.
02000 ENVIRONMENT TOUSION.
                                                                                                                                   C98970
                                                                                                                                   C98970
                                                                                                                                   C98970
                                                                                                                                   C98970
                                                                                                                                  C98970
            SOURCE-COMPUTER. 18M-360.
OBJECT-COMPUTER. 18M-360.
INPUT-OUTPUT SECTION.
                                                                                                                                   C98970
02030
                                                                                                                                   C98970
                                                                                                                                   C98970
02100
           INPUT-OUTPUT SECTION.

FILE-CONTROL.

SELECT IM-FILE-1

RESLRVE 1 ALTERNATE AREA.

SELECT FILE-2

RESLRVE 1 ALTERNATE AREA.

SELECT FILE-3

RESLRVE 1 ALTERNATE AREA.

SELECT OUT-DATA-FILE

RESLRVE 1 ALTERNATE AREA.

SELECT OUT-DATA-FILE

RESLRVE 1 ALTERNATE AREA.

DATA DIVISION.
02120
                                                                                                                                   C98970
02130
                                                                                                                                  C98970
02140
                                                                                                                                   C98970
02150
                                                                                                                                   C98970
                                                                                                                                   C98970
02170
                                                                                                                                   C98970
02180
                                                                                                                                   C98970
02190
10000 DATA DIVISION.
                                                                                                                                   C98970
10010
            FILE SECTION.
                                                                                                                                   C98970
11100 FD IN-FILE-1
                                                                                                                                   C98970
```

```
C98970
                                          RECORDING MODE IS F
BLOCK CONTAINS 60 RECORDS
RECORD CONTAINS 50
LANEL RECORDS ARE OMITTED
DATA RECORDS ARE IN-REC-1.
 11120
                                                                                                                                                                                                                                                                                              C98970
 11140
11150
                                                                                                                                                           CHARACTERS
                                                                                                                                                                                                                                                                                               C98970
C98970
 11160
                                          IN-HIC-1 SYNC.
05 ISO
05 GRP-ID
  11170
                           01
                                                                                                                                                                                                                                                                                               C98970
                                                                                                                                                      PICTURE XX.
PICTURE XX.
PICTURE X.
  11140
 11184
                                                                                                                                                                                                                                                                                               COHOTO
                                         05 GRP-IU
05 FILLER
05 WUC-IN
05 FILLER
05 JU
05 FILLER
05 WUC
05 FILLER
05 DAT
                                                                                                                                                                                                                                                                                               C98970
 11186
                                                                                                                                                      PICTURE XESJ.
                                                                                                                                                                                                                                                                                               C98970
                                                                                                                                                                                                                                                                                               C98976
 11190
                                                                                                                                                      PICTURE X.
                                                                                                                                                                                                                                                                                               C98970
                                                                                                                                                                                                                                                                                               C98970
                                                                                                                                                        PICTURE XESJ.
 11210
                                                                                                                                                                                                                                                                                               C98970
                                                                                                                                                       PICTURE X.
 11220
                                                                                                                                                                                                                                                                                               C98970
                                                          DATA-IN.

10 FILLER

10 NORM-MA

10 FILLER

10 JAR-NORM-MA

10 TILLER
                                                                         DATA-IN.
                                                                                                                                                                                                                                                                                               C98970
                                                                                                                                                      PICTURE X(4).
PICTURE 9073V9.
PICTURE X.
PICTURE X(9).
  11240
                                                                                                                                                                                                                                                                                               C98970
 11250
11260
                                                                                                                                                                                                                                                                                               C98970
 11270
11280
                                                                                                                                                                                                                                                                                               C98970
                                                                                                                                                                                                                                                                                               C98970
                                            05 FILLER
                                                                                                                                                        PICTURE XX.
                                                                                                                                                                                                                                                                                               C98970
                           FO
  12100
                                           FILE-2
                                                                                                                                                                                                                                                                                               C98970
ECORUIN.

JLOCK CONTA.

AECORD LONTAINS

LAREL MECORDS ARE NEC-.

RECHULIGG MODE 15 F

BLOCK CLATAINS 60 RECORDS

RECORD LONTAINS 50

LAREL MECORDS ARE MITTED

DATA MELORDS ARE MEC-3.

01 KEC-3 ST NC

FD OUT-DATA-FILE

RECORDING MODE 15 F

BLOCK CLATAINS 100

LAREL MECORDS ARE OMITTED

DATA MELORDS ARE OMITTED

OATA MECORDS ARE OMITTED

OATA MELORDS ARE OMITTED

OATA MECORDS ARE OMPUTATIONAL

PICTURE S9(8)199.

OATA MECORDS

O
  12110
                                                                                                                                                                                                                                                                                               C98970
                                            RECORDING MODE IS F
BLOCK CONTAINS 60 RECORDS
RECORD UNITAINS 50
LABEL RECORDS ARE OMITTED
DATA RECORDS ARE REC-2.
   12120
  12130
12140
                                                                                                                                                                                                                                                                                               COROTO
                                                                                                                                                                                                                                                                                               C98970
                                                                                                                                                                                                                                                                                                C98970
                                                                                                                                                                                                                                                                                               C98970
C98970
                                                                                                                                                                                                                                                                                                C98970
                                                                                                                                                                                                                                                                                               COROTA
                                                                                                                                                                                                                                                                                               C96970
                                                                                                                                                                                                                                                                                              C98970
                                                                                                                                                                                                                                                                                               C98970
                                           OS NUMA
OS FILLER
US NREP-HP
OS FILLSR
OS NREP-PE
                                                                                                                                                                                                                                                                                                C98970
                                                                                                                                                                                                                                                                                               C98970
                                                                                                                                                       PICTURE X.
PICTURE 9673V9.
                                                                                                                                                                                                                                                                                               C98970
C98970
C98970
                                          05 NHLP-PE
DATA-2 STNC.
05 HMC-2
05 FILLER
  30270
   30300
                           01
                                                                                                                                                       PICTURE XXX.
PICTURE X.
PICTURE 9673V9.
  30310
                                                                                                                                                                                                                                                                                               C98970
                                           05 FILLER
05 MH-MA
05 FILLER
05 VAR-MH-MA
05 FILLER
   30330
 30340
                                                                                                                                                       PICTURE X.
PICTURE 9073V9.
PICTURE X093.
                                                                                                                                                                                                                                                                                               C98970
                                                                                                                                                                                                                                                                                               C98970
  30360
                                                                                                                                                                                                                                                                                               C98970
                           01
                                            WS-HEL-..
                                                                                                                                                        PICTIME N.
  SPINN
```

```
32190
                             05 GRP-10-2
                                                                                                        PICTURE XX.
                                                                                                                                                                                                     C98970
                                                                                                      PICTURE XX.

PICTURE X(9) VALUE SPACE.

PICTURE X(5).

PICTURE X(5) VALUE SPACE.

PICTURE 9(7)V9.

PICTURE X VALUE SPACE.

PICTURE 9(7)V9.

PICTURE X(II) VALUE
32200
                             05 FILLER
                                                                                                                                                                                                      C98970
                                        WUC-REC-2
32210
                             05
                                                                                                                                                                                                      C98970
                             05
                                        FILLER
                                       N2
32230
                                                                                                                                                                                                      C98970
32240
                             05
                                       FILLER
                                                                                                                                                                                                      C98970
32250
32260
                            05 C
05 FILLER
                                                                                                                                                                                                      C98970
                                                                                                                                                                                                      C98970
32270
                                                                           #1.
                                                                                                                                                                                                      C98970
33170
                  01 WS-HEC-J.
                                                                                                                                                                                                      C98970
                            WS-HEC-3.

05 ISO-3

05 ISO-3

05 GMP-D-3

05 FILLER

05 FILLER

05 FILLER

05 FILLER

05 PICTURE X VALUE SPACE.

05 NI

05 FILLER

05 NORM-UMA

05 FILLER

05 NORM-UMA

05 FILLER

05 MH-KIP-PE

05 FILLER

05 MH-KIP-PE

05 FILLER

PAGE-NUM

COMPUTATIONAL

LINES-PHINT COMPUTATIONAL

LINES-PHINT COMPUTATIONAL

VAR-MH-U4A-D COMPUTATIONAL

VAR-MH-U4A-D COMPUTATIONAL

PAGE-CNI

COMPUTATIONAL

PAGE-STEAD

COMPUTATIONAL

PICTURE SOLUTIONAL

PICTURE S
                             05 150-3
33180
                                                                                                        PICTURE X
                                                                                                                                                                                                      C98970
33190
33200
                                                                                                                                                                                                      C98970
33210
                                                                                                                                                                                                      C98970
33220
33230
                                                                                                                                                                                                      COROTO
33240
                                                                                                                                                                                                      C98970
33250
                                                                                                                                                                                                      C98970
33260
                                                                                                                                                                                                      C98970
33270
                                                                                                                                                                                                      C98970
33280
33290
                                                                                                                                                                                                      C98970
                                                                                                                                                                                                      C98970
33300
33400
33410
                                                                                                                                                                                                      C98970
                                                                                                                                                                                                      C98970
33420
                                                                                                                                                                                                      C98970
33430
                                                                                                                                                                                                      C08970
33440
                                                                                                                                                                                                      C98970
33450
                   01
                                                                                                                                                                                                      C98970
33460
                                                                                                                                                                                                      C98970
33470
                  01
33480
                   01
                                                                                                                                                                                                      C98970
                            VAR-NORM-UMA COMPUTATIONAL
MEW-PAGE-REC SYNC.
                                                                                                                                                                                                      C98970
40000
                   01
                             05 FILLER
                                                                                                        PICTURE XC503 VALUE
40010
                                                                                                                                                                                                      C08970
                             11 RESULTS OF PROCESSING MAIN:.
05 FILLER PICTURE X(40) VALUE
TENANCE MANHOUR AND NORM DATA PAGE 1.
40020
                                                                                                                                                                                                      C98970
                                                                                                                                                                                                     C98970
40030
40040
                             05 PAGE-NO-RPT
05 FILLER
40050
                                                                                                       PICTURE Z9.
PICTURE X(8) VALUE
                                                                                                                                                                                                      C98970
40060
                                                                                                                                                                                                      COROTO
40u70
                                                                                                                                                                                                      C98970
                  40100
                                                                                                                                                                                                     C98970
40110
                                                                                                       MEAN VARIANCE
PICTURE XC503 VALUE
E MEAN MEAN
40120
                                                                                                                                                                                                     C98970
40130
40140
                  01 TITLE-2 SYNC.
40200
                                                                                                                                                                                                      C98970
                                                                                                      PICTURE XC503 VALUE
MH/UMA MH/UMA
PICTURE XC503 VALUE
A CMH/REP3PE CMH/REP3HPO
                             05 FILLER : GROUP SUBSET 05 FILLER
                                                                                                                                                                                                      C98970
40220
                                                                                                                                                                                                     C98970
                                                                                                                                                                                                     C98970
40230
                                                  TORM/UMA NORM/UMA
40240
                            DATA-OUT SYNC.
05 FILLER
05 WUC-OUT
40300
                  01
                                                                                                                                                                                                      C98970
                                                                                                        PICTURE XX VALUE SPACE.
40310
                                                                                                                                                                                                      C98970
                                                                                                       PICTURE XX VALUE SPACE.
PICTURE XXX VALUE SPACE.
PICTURE X(7).
PICTURE X(3) VALUE SPACE.
PICTURE X(3) VALUE SPACE.
                                       WUC-OUT
                                                                                                                                                                                                      C98970
40330
                             05
                                                                                                                                                                                                      C98970
40340
                                        A-C-SUB-SET
                                                                                                                                                                                                      C98970
40350
                                        FILLER
                              05
                                        MH-UMA-RPT
40360
                             05
                                                                                                                                                                                                      C98970
                                                                                                      PICTURE Z(8].9.

PICTURE £18].9.

PICTURE £18].9.

PICTURE Z(8].9.

PICTURE Z(8].9.

PICTURE X(3] VALUE SPACE.

PICTURE X(3] VALUE SPACE.

PICTURE Z(8].9.

PICTURE Z(8].9.

PICTURE Z(8].9.

PICTURE Z(8].9.

PICTURE Z(8].9.

PICTURE Z(8].9.

PICTURE X(3] VALUE SPACE.

PICTURE X(3] VALUE SPACE.
40370
                                        FILLER
                              05
                                                                                                                                                                                                      C98970
                                        VAR-MH-UMA-RPT
403A0
                             05
                                                                                                                                                                                                      C98970
                                       FILLER
NORM-UMA-RPT
40390
                                                                                                                                                                                                      C98970
40400
                             05
                                                                                                                                                                                                      C98970
40410
                                        FILLER
                             05
                                                                                                                                                                                                      C98970
                                         VAR-NORM-UMA-RPT
40420
                              05
40430
                                        FILLER
                              05
                                                                                                                                                                                                      C98970
                                        MH-KEP-PE-RPT
                                                                                                                                                                                                      C98970
40450
                                        FILLER
                              05
                                                                                                                                                                                                       C98970
40460
                                         MH-KEP-HP-RPT
                                                                                                                                                                                                      C98970
40470
                                       FILLER
                                                                                                                                                                                                       C98970
                                                           : #1,
                                                                                                                                                                                                      C98970
50000
                  PROCEDURE DIVÍSION.
                             OPEN THPUT IN-FILE-1,
50010
                                                                                                                                                                                                      C98970
                             OPEN INPUT IN-FILE-1,
FILE-2,
FILE-3, OUTPUT OUT-DATA-FILE,
PERFORM RESET-1,
PERFORM RESET-2,
50020
                                                                                                                                                                                                      C98970
50030
                                                                                                                                                                                                       C98970
50050
                                                                                                                                                                                                      C98970
50060
                PERFORM RESET=2.

READ=DATA=IN.

READ IN-FILE=I: AT END GO TO CLOSE=DATA:

IF ISO IS EQUAL TO 191 GO TO CLOSE=DATA:

ADD I TO NUM-REC=1:

IF ISO IS EQUAL TO CURISO GO TO TEST=GRP=ID:

IF CURISO IS EQUAL TO SPACE

MOVE ISO TO CURISO

GO TO TEST-GRP=ID:
                                                                                                                                                                                                      C98970
50100
                                                                                                                                                                                                       C98970
                                                                                                                                                                                                      C98970
50111
50116
                                                                                                                                                                                                       C98970
                                                                                                                                                                                                      C98970
50130
50140
                                                                                                                                                                                                       C98970
$0150
                                                                                                                                                                                                       C98970
```

```
GO TO NEW-GROUP.
                                                                                                                                                                                 C98970
50160
50160 GO TO NEW-GROUP.

50210 TEST-GRP-ID IS EQUAL TO CURID GO TO TEST-WUC.

50210 IF GRP-ID IS EQUAL TO SPACE

50230 HOVE GRP-ID TO CURID

50240 GO TO TEST-WUC.

50250 GO TO NEW-GROUP.
                                                                                                                                                                                 COROTO
                                                                                                                                                                                 C98970
                                                                                                                                                                                  C98970
                                                                                                                                                                                 C98970
              TEST-WUC IS EQUAL TO CURWUC 60 TO TEST-ID.

IF CURWUC IS EQUAL TO SPACE

MOVE WUC TO CURWUC

60 TO TEST-ID.
50300
50310
                                                                                                                                                                                  C98970
                                                                                                                                                                                 C98970
50320
                                                                                                                                                                                  C98970
           GO TO TEST-ID.

GO TO NEW-WUC.

TEST-ID.

MOVE WUL-IN TO MUC-OUT.

IF JD IS EQUAL TO ONE MOVE DATA-IN TO DATA-1

GO TO READ-DATA-IN.

IF JD IS EQUAL TO TWO MOVE DATA-IN TO DATA-2

GO TO TEST-HMC.

IF N2 IS EQUAL TO ZERO GO TO READ-DATA-IN.

COMPUTE :> C / N2 - MH-UMA.

COMPUTE VAR-NH-UMA-D > VAR-NH-UMA-D < [N2 + A + A < X1].

COMPUTE VAR-NORM-UMA-D > VAR-NORM-UMA-D < [NORM-UMA] +

[NORM-MA - NORM-UMA] +

[NORM-MA - NORM-UMA].
50330
                                                                                                                                                                                 C98970
50340
50350
                                                                                                                                                                                 C08070
                                                                                                                                                                                 C98970
50400
 50405
                                                                                                                                                                                  C98970
50410
                                                                                                                                                                                 C98970
50420
50430
                                                                                                                                                                                  C98970
                                                                                                                                                                                 C98970
50440
50455
                                                                                                                                                                                  CO8970
50460
                                                                                                                                                                                 C98970
50465
 50466
                                                                                                                                                                                 C98970
                                                                                                                                                                                 C98970
50467
50470
50500
50510
                                                                                                                                                                                  COAGTO
                          IF HMC-1 IS NOT EQUAL TO HMC-2 GO TO READ-DATA-IN.
                                                                                                                                                                                 C98970
                          IF NO IS EQUAL TO ZERO GO TO READ-DATA-IN.

COMPUTE R > MH-MA - C / N2.

COMPUTE X1 > X1 < NUMA * [VAR-MH-MA < B + B].

GO TO HE/D-DATA-IN.
                                                                                                                                                                                  C98970
 50515
50520
                                                                                                                                                                                  C98970
50530
 50690
                                                                                                                                                                                 COASTO
 51000
                 NEW-WUC.
                                                                                                                                                                                  C98970
                          PERFORM HESET-1.
 51050
                                                                                                                                                                                  C98970
                 MOVE WUL TO CURWUC.
GO TO TEST-ID.
NEW-GROUP.
 51060
                                                                                                                                                                                  C98970
51090
                         GROUP.

COMPUTE VAR-MH-UMA > VAR-MH-UMA-D / N1.

COMPUTE VAR-NORM-UMA > VAR-NORM-UMA-D / N1.

IF CURISO IS EQUAL TO ONE MOVE I ISO : TO A-C-SUB-SET

ELSE MOVE :NON-1SO! TO A-C-SUB-SET.

MOVE MH-UMA TO MH-UMA-RPT.

MOVE NORM-UMA TO NORM-UMA-RPT.

MOVE NORM-UMA TO VAR-NORM-UMA-RPT.

MOVE VAR-NORM-UMA TO VAR-NORM-UMA-RPT.

MOVE WHI-REP-BE TO MH-REP-PE-RPT.

MOVE MH-REP-HP TO MH-REP-HP-RPT.

IF PAGE-CHT IS GREATER THAN 60 PERFORM NEW-PAGE.

WRITE OUT-DATA-REC FROM DATA-OUT.

ADD I TO PAGE-CNT.

ADD I TO LINES-PRINT.

-GROUP-END.
 51100
                                                                                                                                                                                  C98970
 51110
51120
                                                                                                                                                                                   098970
 51140
                                                                                                                                                                                  CORSTO
 51150
                                                                                                                                                                                  C98970
51160
                                                                                                                                                                                  C98970
 51170
                                                                                                                                                                                  C98970
51180
51190
                                                                                                                                                                                  CORSTO
 51200
                                                                                                                                                                                  C98970
51210
                                                                                                                                                                                  C98970
 51220
                                                                                                                                                                                  C98970
 51230
 51240
                                                                                                                                                                                  C98970
                                                                                                                                                                                  C98970
                ADD 1 TO LINES-PRINT.

NEW-GROUP-END.

PERFORM RESET-1.

PERFORM RESET-2.

MOVE WUC TO CURWUC. MOVE GRP-ID TO CURID.

MOVE ISO TO CURISD.

GO TO TEST-ID.

CLOSE-DATA.

PERFORM NEW-GROUP.

MOVE NUM-REC-1 TO TEMP-NUM.

DISPLAY! NO. RECS FILE: TEMP-NUM UPON CONSOLE.
 51255
                                                                                                                                                                                  C98970
 51260
                                                                                                                                                                                  C98970
51270
51370
                                                                                                                                                                                  C98970
                                                                                                                                                                                  C98970
 51.390
 52000
                                                                                                                                                                                  C98970
 52010
52100
                                                                                                                                                                                  C98970
                                                                                                                                                                                  C98970
                          DISPLAY : NO. RECS FILE : TEMP-NUM UPON CONSOLE.

MOVE NUM-REC-2 TO TEMP-NUM.
DISPLAY : NO. RECS FILE 2 I TEMP-NUM UPON CONSOLE.

MOVE NUM-REC-3 TO TEMP-NUM.
DISPLAY : NO. RECS FILE 3 I TEMP-NUM UPON CONSOLE.

MOVE LIMIS-PRINT TO TEMP-NUM.
DISPLAY : TOTAL LINES PRINTED > 1 TEMP-NUM UPON CONSOLE.

MOVE PAGE-NUM TO TEMP-NUM.
52120
52130
52140
                                                                                                                                                                                  CORSTO
                                                                                                                                                                                  C98970
52150
 52160
                                                                                                                                                                                  C98970
52170
52180
                                                                                                                                                                                  COAGTO
                           DISPLAY . TOTAL PAGES PRINTED > I TEMP-NUM UPON CONSOLE.
                CLOSE-FILES.
CLOSE IN-FILE-1.
 52200
                                                                                                                                                                                  C98970
                                                                                                                                                                                  C98970
                          FILE-2:

OUT-DATA-FILE:

FILE-3 WITH LOCK.

DISPLAY : EOJ 9897 I UPON CONSOLE.
 52230
 52235
                                                                                                                                                                                  C98970
 52240
                                                                                                                                                                                  C98970
 52250
                                                                                                                                                                                   C98970
 52290
                           GOBACK.
                                                                                                                                                                                  C98970
                GUDALN.

RESET-1.

MOVE ZERO TO X1.

READ FILE-2 INTO WS-REC-2. AT END GO TO CLOSE-DATA.

IF 150-2 IS EQUAL TO 191 GO TO CLOSE-DATA.

ADD 1 17 NUM-REC-2.
53000
53010
                                                                                                                                                                                  C98970
C98970
 53020
                                                                                                                                                                                  C98970
53040
53050
                                                                                                                                                                                  C98970
```

THE RESIDENCE OF THE PARTY OF THE PARTY.

```
53100 RESET-2.
53110 MOVE ZERU TO VAR-MH-UMA-D.
53120 MOVE ZERO TO VAR-NORM-UMA-D.
53130 READ FILE-3 INTO WS-REC-3. AT END GO TO CLOSE-DATA.
53150 IF ISO-3 IS EQUAL TO 191 GO TO CLOSE-DATA.
53160 ADD 1 TO NUM-REC-3.
                                                                                                                          C98970
                                                                                                                          C98970
C98970
                                                                                                                          C98970
53150
ADD 1 ;
55000
NEW-PAGE.
55010
ADD 1 TO PAGE-NUM.
MOVE ZERO TO PAGE-CNT.
SAGE-NUM TO PAGE-ING.
                                                                                                                          C98970
                                                                                                                          C98970
                                                                                                                          C98970
C98970
                                                                                                                          C98970
MOVE PAGE-NUM TO PAGE-NO-RPT.
                                                                                                                          C98976
                                                                                                                          C98970
                                                                                                                          C98970
                                                                                                                       1440 CDS
                                                                                                                       T12
D25-PASS
                                                                                                                       D25-IN
```

